Panasonic®

Operating Instructions <Basics>

HD Integrated Camera

Model No. **AW-HE50HN**
AW-HE50SN

Before operating this product, please read the instructions carefully and save this manual for future use.

For instructions on how to operate this HD Integrated Camera and how to establish its settings, refer to the "Operations and Settings" manual (PDF file) which can be found on the CD-ROM supplied with the camera.

3TR006490BAA

Safety precautions

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER TO SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the appliance.

WARNING:

■ **THIS APPARATUS MUST BE EARTHED**
To ensure safe operation, the three-pin plug must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.
Extension cords used with the apparatus must have three cores and be correctly wired to provide connection to the earth. Wrongly wired extension cords are a major cause of fatalities.
The fact that the apparatus operates satisfactorily does not imply that the power point is earthed or that the installation is completely safe. For your safety, if you are in any doubt about the effective earthing of the power point, please consult a qualified electrician.

─ For CANADA ─

This class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

WARNING:

• **TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.**
• **THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.**

WARNING:
TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.

CAUTION:
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

FCC Note:
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning:
To assure continued FCC emission limit compliance, the user must use only shielded interface cables when connecting to external units. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate it.

CAUTION:
In order to maintain adequate ventilation, do not install or place this unit in a bookcase, built-in cabinet or any other confined space. To prevent risk of electric shock or fire hazard due to overheating, ensure that curtains and any other materials do not obstruct the ventilation.

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

A warning that an apparatus with CLASS 1 construction shall be connected to a MAINS socket outlet with a protective earthing connection.

⬚ indicates safety information.

Safety precautions

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord form being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

▭ indicates safety information.

Contents

How the model's Operating Instructions manuals are configured

- The manual of this HD integrated camera (hereafter, "the unit") is divided into two manuals: one is the <Basics> (this manual), and the other is the <Operations and Settings> (CD-ROM).
  Before installing the unit, be sure to read the <Basics> to ensure that the unit is installed correctly.
- This manual explains how to install the unit, and it details the network connection and setting procedures.
  For details on how to operate the unit and select its settings, refer to the "Operating Instructions <Operations and Settings>" (PDF file) on the CD-ROM supplied with the unit.
  To read PDF files, you will need Adobe® Reader® which is available from Adobe Systems.

Before use

■ Overview

● This unit is a compact full HD camera integrated with a pan-tilt head and featuring a newly developed 1/3-inch full HD MOS sensor and digital signal processor (DSP).

● In addition to its optical 18× zoom lens, the unit comes with a 10× digital zoom to achieve high-quality shooting that overflows with ambiance.

● Two models are available: the HDMI model AW-HE50H which is ideal for distributing the signals of TV conference and other video events, and the SDI output model AW-HE50S which is ideal for creating content.
Besides IP control, both models allow connection with existing camera controllers by way of serial control.

■ Concerning the Operating Instructions

● For the purposes of this manual, the model number AW-HE50HN is referred to as the "AW-HE50H", the AW-HE50SN as the "AW-HE50S" and model numbers AW-HE50HN and AW-HE50SN will be referred to together as the "AW-HE50".
Similarly, the model number AW-RP655N is referred as the "AW-RP655", the AW-RP555N as the "AW-RP555" and the AW-RP50N as the "AW-RP50".

Before use

■ Required personal computer environment

CPU	Intel® Core™2 DUO 2.4 GHz or faster recommended
Memory	512 MB or more (When using Microsoft® Windows Vista®: 1 GB or more, and when using Microsoft® Windows® 7: 1 GB [32 bits] or 2 GB [64 bits] or more)
Network function	10Base-T or 100Base-TX port ×1
Image display function	Resolution: 1024 × 768 pixels or more Color generation: True Color 24 bits or more
Supported operating system and Web browser	Microsoft® Windows® 7 Professional 64-bit*1 Microsoft® Windows® 7 Professional 32-bit*1 Windows® Internet Explorer® 8.0*2
	Microsoft® Windows Vista® Business SP1 32-bit Windows® Internet Explorer® 7.0
	Microsoft® Windows® XP Home Edition SP3*3 Microsoft® Windows® XP Professional Edition SP3*3 Microsoft® Internet Explorer® 6.0 SP3
	*1: This cannot be used in the Windows® XP compatibility mode. *2: This cannot be used with the 64-bit version of Internet Explorer® 8.0. *3: The Microsoft® Windows® XP Professional x64 Edition is not supported.
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for browsing the Operating Instructions on the CD-ROM)

IMPORTANT
● **Failure to provide the required personal computer environment may slow down the delineation of the images on the screen, make it impossible for the web browser to work and cause other kinds of problems.**

✐ **Memo** ✐

● When using Microsoft® Windows Vista® or Microsoft® Windows® 7, refer to the "Notes on Windows Vista®/Windows® 7" (page 84 in the <Operations and Settings>) for details on the personal computer environment that is required and on the precautions and other items.

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■ About copyright and licence

Distributing, copying, disassembling, reverse compiling, reverse engineering, and also exporting in violation of export laws of the software provided with this unit are expressly prohibited.

Before use

■ Disclaimer of warranty

IN NO EVENT SHALL Panasonic System Networks Co., Ltd. BE LIABLE TO ANY PARTY OR ANY PERSON, EXCEPT FOR REPLACEMENT OR REASONABLE MAINTENANCE OF THE PRODUCT, FOR THE CASES, INCLUDING BUT NOT LIMITED TO BELOW:

① ANY DAMAGE AND LOSS, INCLUDING WITHOUT LIMITATION, DIRECT OR INDIRECT, SPECIAL, CONSEQUENTIAL OR EXEMPLARY, ARISING OUT OF OR RELATING TO THE PRODUCT;

② PERSONAL INJURY OR ANY DAMAGE CAUSED BY INAPPROPRIATE USE OR NEGLIGENT OPERATION OF THE USER;

③ UNAUTHORIZED DISASSEMBLE, REPAIR OR MODIFICATION OF THE PRODUCT BY THE USER;

④ INCONVENIENCE OR ANY LOSS ARISING WHEN IMAGES ARE NOT DISPLAYED, DUE TO ANY REASON OR CAUSE INCLUDING ANY FAILURE OR PROBLEM OF THE PRODUCT;

⑤ ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY;

⑥ LOSS OF REGISTERED DATA CAUSED BY ANY FAILURE.

■ Network security

As you will use this unit connected to a network, your attention is called to the following security risks.

① Leakage or theft of information through this unit

② Use of this unit for illegal operations by persons with malicious intent

③ Interference with or stoppage of this unit by persons with malicious intent

It is your responsibility to take precautions such as those described below to protect yourself against the above network security risks.

● Use this unit in a network secured by a firewall, etc.
● If this unit is connected to a network that includes PCs, make sure that the system is not infected by computer viruses or other malicious entities (using a regularly updated antivirus program, anti-spyware program, etc.).
● Protect your network against unauthorized access by restricting users to those who log in with an authorized user name and password.
● Apply measures such as user authentication to protect your network against leakage or theft of information, including authentication information (user names and passwords), FTP server information and DDNS server information.
● Do not install the camera in locations where the camera or the cables can be destroyed or damaged by persons with malicious intent.

Characteristics

Multiple number of formats supported
- Switching between the 1080/59.94i, 720/59.94p and 480/59.94i formats can be accomplished using a menu. By using VIDEO OUT signals, HD format signals and SD format signals can be output at the same time.
- With the SD format, either Squeeze (16:9), LetterBox (16:9) or SideCut (4:3) can be selected.

1/3-inch MOS sensor and high-performance 18× zoom lens featured
- A newly developed 1/3-inch full HD MOS sensor and DSP (digital signal processor) are incorporated. High-quality pictures are obtained by video processing in many different kinds of ways.
- In addition to its optical 18× zoom lens, the unit comes with a 10× digital zoom to achieve high-quality images that overflow with ambiance.
- A dynamic range stretch (DRS) function that compensates for overexposure and loss of dark detail and a new hybrid digital noise reduction (Hybrid DNR) function for minimizing image lag even in dark locations and shooting scenes clearly are incorporated to reproduce clean and clear images in a wide range of applications.

Easy operation of unit enabled by its integration with a high-performance pan-tilt head unit
- Operations at the high speed of 90°/s
- Wide rotational angles with a panning range of ±175° and a tilting range from −30° to +90°
- Quiet operation with noise levels of NC35 (normal speed) and NC40 (when preset)
- Storage of up to 100 positions in the preset memory (The number of preset memory settings differs depending on the controller that is used with the unit.)

High degree of compatibility with Panasonic's currently available controllers, enabling a flexible system to be put together
- A maximum of five units can be operated by serial control from one of Panasonic's currently available controllers (AW-RP655, AW-RP555 and AW-RP50). (It may be necessary to upgrade the version of the controller in order to support the unit. The maximum distances between the units and controller is 1000 meters (3280 ft.). Use of an external device or some other means must be provided separately in order to extend the video signal connections.) The unit can also be used together with the cameras and pan-tilt head unit systems currently available from Panasonic System Networks Co., Ltd. so that an existing system can be used to advantage to put together a system that is even more flexible.

Integrated pan-tilt head unit, camera and lens to facilitate installation
- By designing the camera, lens and pan-tilt head as a single integrated unit, the time taken for the installation work has been drastically reduced.

Use of easy-to-operate wireless remote control (optional accessory) is possible
- A wireless remote control capable of operating up to four units can be used. It can easily be used to set the various functions or switch between them while viewing the menu screens.

Flexible camera layout enabled by simple connection and installation
- This unit features excellent connectivity and installability thanks to the IP control; a lightweight main unit, and the turn-lock mechanism, which enables the user to install it on his or her own (only when used indoors).

Energy-savings achieved by the compact main unit design
- By slimming down the unit's weight and dimensions, a low power consumption is yielded, and even the connection of a multiple number of units poses no concerns.

Easy connections and settings courtesy of IP control
- Up to a hundred units can be operated by IP connection from a Panasonic controller (AW-RP50). (The maximum length of the LAN cables is 100 meters [328 ft.].)
- By automatically recognizing the IP addresses and changing their allocation, the previous restrictions on the connections between the cameras and controllers using serial interfaces and the time and trouble taken to establish the various settings can be significantly reduced, and by configuring a network, flexible camera control can be implemented anywhere with any of the cameras.

Controller supported

- AW-RP655
- AW-RP555
- AW-RP50

- **It may be necessary to upgrade the version of the controller in order to support the unit.**
  Consult with your dealer.

Notes

■ When connecting the AW-RP655
- The camera menus that are operated using the LCD panel on the AW-RP655 cannot be used.
→ Use the camera menus displayed on the monitor which has been connected to the unit.

■ When connecting the AW-RP555
- The AW-RP555 periodically transmits the POWER-ON command to the pan-tilt head. This means when the unit has been selected from the AW-RP555, its power will be turned on again after several seconds even if the unit has been set to the standby mode by the web browser, IP-connected controller or wireless remote control (optional accessory).

Accessories

Check that the following accessories are present and accounted for.

Operating Instructions <Basics> (this manual) 1

Operating Instructions <Operations and Settings>
(CD-ROM) 1

Mount bracket for installation surface
(Hanging / Desktop) 1

Bracket mounting screws (bind-head) M4 × 10 mm 4

Main unit mounting screw (with flat washer, spring washer)
M3 × 6 mm 1

Drop-prevention wire (already attached to the main unit) ... 1

Power cable (2 m [6.6 ft.]) 1

Cable cover 1

AC adapter 1

Installation precautions

In addition to heeding the points presented in the "Safety precautions", observe the following precautions as well.

Ensure that the installation work complies with the technical standards governing electrical equipment.

This unit is for indoor use only.
It cannot be used outdoors.
Avoid installation in a location where the unit will be exposed to direct sunlight for extended periods or near a cooling or heating appliance.
Otherwise, deformation, discoloration, malfunctioning and/or problems in operation may result. Operate the unit where it will not be splashed or sprayed by water.

Use the unit with an installation where the unit is suspended from an overhead surface or with a stand-alone installation.
Do not use the unit on its side or tilted at an angle.

Notes

● Be absolutely sure to use the four bracket mounting screws (M4) for mounting the mount bracket.
These are supplied with the unit. Do not use wood screws, nails, etc.
In the case of a concrete ceiling, secure the unit using anchor bolts (for M4) or AY plug bolts (for M4).
Recommended clamping torque
M4: 1.47 N·m (15 kgf·cm)
● The withdrawal strength of the mounting location for each screw must be at least 196 N (20 kgf).
● When mounting the unit on a ceiling made of plasterboard, for instance, if it is not strong enough to support its weight, either reinforce the ceiling adequately or use the WV-Q105 direct ceiling mount bracket, which is sold separately.
● When using a mount bracket which is sold separately, read the handling instructions.
● Do not hold the camera head while undertaking the installation work. Doing so may cause malfunctioning.

| OK | NG | OK | NG |

Desktop installation   **Hanging installation**

Concerning the installation location
Install the unit in a stable location which will not be susceptible to shaking. If the unit is installed in a location which is susceptible to shaking, this will cause the unit's images to shake in turn.
Install the unit after conferring in detail with your dealer.
Install the unit on a ceiling that is strong enough (such as a concrete ceiling).
If the unit is to be installed on a ceiling which is not strong enough, reinforce the ceiling sufficiently first.

Do not install or use the unit in the following kinds of locations.
● On walls (where the unit would be installed sideways)
● In locations (including places such as under the eaves of a building) where the unit would be directly exposed to rain or water
● In locations such as kitchens where there are high concentrations of steam and grease
● In outdoor locations or hot places where the temperature will exceed 40 °C (104 °F)
● In cold locations where the temperature will drop below 0 °C (32 °F)
● In locations where the humidity will exceed 85 %
● In locations where chemicals are used such as near swimming pools
● At sea, in coastal areas or in locations where corrosive gases are emitted
● In locations where radiation, X-rays, or strong radio waves or magnetic fields are generated
● In locations where the unit would be subject to a great deal of vibration such as on board a vehicle or ship (this unit is not designed to be used in vehicles)
● In locations where the temperature is subject to sudden changes such as near the air outlet of an air conditioner or near a door which allows the outside air to come in

What to avoid to ensure that the unit will perform stably over a prolonged period
● Using the unit for a prolonged period in a location with high temperature and humidity levels will cause its parts to deteriorate and shorten its service life.
● Ensure that a cooling unit or heating unit will not blow any air directly toward the installation location.

AW-HE50 main unit	Mounting conditions					
	Applicable mount bracket			Mounting onto the ceiling		
Mass	Model No.	Mass	Mounting	Recommended screws	No. of screws	Minimum withdrawal strength (per screw)
Approx. 1.4 kg [3.09 lbs.] (Including mount bracket)	Direct mount (supplied accessory)	Approx. 0.23 kg [0.51 lbs.]	Hanging/Desktop	M4 screws (supplied accessory)	4	196 N (20 kgf) ● Ensure that the mounting strength can support a weight that is at least five times the total mass of the equipment, including the camera's main unit.
	WV-Q105 (optional accessory)	Approx. 0.15 kg [0.33 lbs.]	For ceiling	M4 screws	4	

Installation precautions

Be absolutely sure to use the bracket and screws supplied when installing the unit.
● Do not mount the unit by employing any methods other than those specified.
● Do not remodel the mounting bracket or mounting screws provided with the unit.

Tightening up the mounting screws
● Tighten up the screws and bolts securely to the degree that is appropriate for each of the materials used in the mounting location and structures.
● After tightening up the screws and bolts, check that there is no unsteadiness and that the parts have been tightened securely.
● Use the specified tools and tighten the screws firmly.

When the unit is no longer going to be used, do not leave it lying around, but be absolutely sure to dispose of it properly.
For details on how to remove the unit, refer to "Removing the camera" (page 26).

When installing, transferring or disposing of the unit, be absolutely sure to hold it by its pedestal area.
Problems may result if the camera head is held or rotated.

Do not attach a filter, hood, extender or other parts to the unit.

Use the dedicated AC adapter and power cable provided with the unit.
Connect the AC adapter and power cable to the power inlet securely.

Installing the AC adapter
● Do not place the adapter directly onto a ceiling panel or other such surface.
Extreme danger is posed when water has collected on the surface as a result of leaking rain, for instance.
Secure the adapter firmly to the bottom or other surface of a reinforcing member made of channel steel where dust and other foreign matter will not accumulate. (Refer to page 24.)
● Secure the adapter firmly so that there will be no chance that it will fall off or fall down.
Secure it using a strength which can withstand the mass (approx. 320 g [0.71 lbs.]) of the AC adapter.

Install the accessory AC adapter near the main power outlet, and position it in such a way that its power plug can be plugged into and unplugged from the outlet easily.
When connecting the AC adapter to a power outlet on the ceiling or on any other surface where dust may collect, wipe off the dust on the power plug at periodic intervals as an anti-tracking measure.

Power switch
This unit does not have a power switch. The power turns on when its power plug is connected to a power outlet.
When the power is turned on, the pan, tilt, zoom and focusing operations are performed. Before proceeding with maintenance, be absolutely sure to disconnect the power plug from the power outlet.

Connecting the power cable
Be absolutely sure to connect the power cable of the AC adapter through a circuit breaker using one of the following methods.
  (1) Connect the power cable through a power control unit.
  (2) Connect the power cable to a circuit breaker in a power distribution panel with a contact distance of 3.0 mm or more.
     Use a circuit breaker which is capable of shutting off all the poles of the main power supply with the exception of the protective ground conductor.
  (3) Install the AC adapter near the power outlet, and connect it through the power plug.

Grounding
Before using the unit, check that the grounding wire has been fastened securely.
Check the grounding resistance (less than 100 Ω) of the grounding terminal.
When the power plug is to be converted into a 2-pin plug for use, first consult with your dealer. Then use a plug adapter which is equipped with a grounding terminal, and be absolutely sure to connect this terminal to ground.
In a case like this, be absolutely sure to make the connection to ground before proceeding to connect the power plug to the main power source.
Similarly, before the ground connection is to be disconnected, be absolutely sure to disconnect the power plug from the main power source first.

If there is a possibility of noise interference
Either wire the cables so that the power cable (ceiling light cord) of AC 100 V or more, and the signal cable are placed at least 1 meter (3.3 ft.) apart. Alternatively run each cable through its own metal conduit. (The metal conduits must be grounded.)

Radio signal interference
If the unit is positioned near a TV or radio transmitting antenna or a strong electrical field or magnetic field (such as that generated by a motor, transformer or power lines), its images may be distorted and/or the images may be affected by noise.

When connecting the cables, ensure that the connector areas will not be subject to any load.
Doing so may cause malfunctioning.

Allowing the generated heat to escape
This unit allows the heat generated inside to escape from its surfaces.
Do not install the unit in a location where it will be surrounded by walls or other surfaces and where heat will be trapped.

IMPORTANT
● **The product name and its electrical ratings are marked on its bottom panel.**

Operating precautions

Shoot under the proper lighting conditions.
To produce pictures with eye-pleasing colors, shoot under the proper lighting conditions.
The pictures may not appear with their proper colors when shooting under fluorescent lights.
Select the proper lighting as required.

To ensure a stable performance in the long term
Using the unit for prolonged periods in locations where the temperature and humidity levels are high will cause its parts to deteriorate, resulting in a reduction of its service life.
(Recommended temperature: Max. 35 °C [95 °F])
Ensure that a cooling unit or heating unit will not blow any air directly toward the installation location.

Image persistence on the MOS sensor color filters
If parts of the MOS sensor are exposed continuously to spotlights or other bright lights, the color filters inside the MOS sensor will deteriorate, and the parts concerned may become discolored. The discoloration may be noticeable when the direction of fixed monitoring is changed.

Do not point the camera at strong lights.
When parts of the MOS sensor are exposed to spotlights or other strong lights, blooming (a phenomenon where the edges of strong lights become blurred) may occur.

Bright subject

Blooming
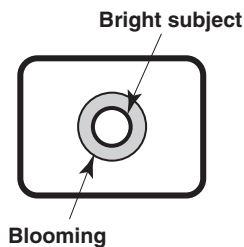
Concerning the color reproduction of MOS sensors
Depending on the color tones of the subjects, the color reproduction may deteriorate: This is normal and not indicative of any trouble.

What happens with high-brightness subjects
Flare may occur if an extremely bright light source is pointed at the lens. In a case like this, change the angle or take some other remedial action.

When using the automatic functions
● If "FullAuto" has been selected as the setting for Scene on the camera menu, for example, all the auto settings will be turned on, and manual operations will no longer be possible for some of the items.
● When using the ATW (auto tracking white adjustment) function under fluorescent lights, the white balance may vary.
● In some situations, it may be hard to focus at the auto setting. In cases like this, select the manual setting, and focus manually.
● The appropriate brightness may not be obtained when shooting bright objects using the auto settings for the gain and iris. In cases like this, set the shutter speed to manual, and adjust.

Zooming and focusing
When the focus is set manually, out-of-focusing may occur during zooming.
After zooming, if necessary, either adjust the focus or set the focus to auto.
When using the focus at the manual setting, proceed with zooming after setting the focus position at the Tele end where the focusing accuracy is higher.
(However, if the distance from the unit to the subject is less than 1.5 meters [4.92 ft.], the subject may shift out of focus at the Wide end.)
If zooming is performed to the Tele end after having adjusted the focus at the Wide end, out-of-focusing may occur.

Concerning the zoom position when the power is turned on
When the unit's power is turned on, the zoom, focus and iris return to the positions they occupied immediately before the power was turned off. (This happens for the focus and iris when they were set manually.)
However, this position may not be restored if, for instance, the power cable was disconnected during operation.

The unit comes with the safe mode.
The safe mode is function designed to protect the unit from damage.
For further details, refer to "Safe mode" (page 83 in the <Operations and Settings>).

Operating temperature range
Avoid using the unit in cold locations where the temperature drops below 0 °C (32 °F) or hot locations where the temperature rises above +40 °C (104 °F) since these temperatures downgrade the picture quality and adversely affect the internal parts.

Concerning the VIDEO OUT signal
The VIDEO OUT signal of the MULTI-I/F connector is provided in case the images are to be monitored.

Color bars
● Color bars are used to adjust the color phase, and the widths and positions of these bars may differ from other models.
● The setting for the Down CONV. Mode item when color bars are displayed is fixed at "Squeeze".
If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

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Operating precautions

Turn off the power before connecting or disconnecting the cables.
Always be sure to turn off the power before connecting or disconnecting the cables.

Handle the unit carefully.
Do not drop the unit or subject it to strong impact or vibration. Doing so may cause the unit to malfunction.

When the unit is not in use
Turn off the unit's power when it is not in use.
When the unit is no longer going to be used, do not leave it lying around, but be absolutely sure to dispose of it properly.

Do not touch the optical system parts.
The optical system parts are the very heart of the camera. Under no circumstances must they be touched.
In the unlikely event that they have become dusty, remove the dust by using a camera blower or by wiping them gently with a lens cleaning paper.

Personal computer used
If the same image is displayed for a prolonged period on a PC monitor, the monitor may be damaged. Use of a screen saver is recommended.

Do not allow foreign matter to make contact with the rotating parts.
Otherwise, trouble may be caused.

Self-diagnosis function
When an abnormal operation caused by the effects of extraneous noise or other factors continues for more than 30 seconds during use, the unit's reset operation will automatically be triggered, after which the unit will restart. After it has started up again, the same initialization operation as when the power is turned on will be performed. If abnormal operations occur frequently, it may be because high levels of extraneous noise are being generated in the environment where the camera has been installed. These events will cause problems in the camera so consult with your dealer as soon as possible.

Keep the unit away from water.
Avoid all direct contact with water. Otherwise, problems may occur.

Maintenance
Turn off the unit's power before proceeding with maintenance.
Otherwise, you may injure yourself.
Wipe the surfaces using a soft dry cloth. Avoid all contact with benzene, paint thinners and other volatile substances, and avoid using these substances. Otherwise, the casing may become discolored.

Do not turn the camera head by hand.
Turning the camera head by hand may cause the unit to malfunction.

Use the unit in an environment with minimal moisture and dust.
Avoid using the unit in an environment with high concentration of moisture or dust since these conditions will damage the internal parts.

Disposal of the unit
When the unit has reached the end of its service life and is to be disposed of, ask a qualified contractor to dispose of the unit properly in order to protect the environment.

Concerning the wireless remote control (optional accessory)

This unit can be operated by remote control using a wireless remote control (model number: AW-RM50G) purchased separately.
Check out the following points before using the wireless remote control.

> Consult your dealer concerning the purchase of a wireless remote control.

● **Operate the wireless remote control from positions less than 10 meters (32.8 ft.) away from the unit.**

● **The wireless remote control may not work when it is pointed from certain angles at the unit.**
From a place where the wireless remote control signal light-sensing area (hereafter, "light-sensing area") can be seen, point the signal transmission window of the wireless remote control at the light-sensing area, and operate the buttons.
It may prove to be more difficult to operate the unit when the remote control is operated from behind the unit.

● **If the unit is installed near fluorescent lights, plasma monitors or other such products or if the unit is exposed to sunlight, the effects of the light may make it impossible for the unit to be operated using the wireless remote control.**
Be sure to follow the steps below for installation and use.
 • Take steps to ensure that the light-sensing area will not be exposed to the light from fluorescent lights, plasma monitors or other such products or from the sun.
 • Install the unit away from fluorescent lights, plasma monitors and other such products.

● **For about 10 minutes even after the batteries have been removed from the wireless remote control, the selection of the operation to be performed (the [CAM1], [CAM2], [CAM3] or [CAM4] button which was pressed last) will remain stored in the memory. When a longer period of time elapses, however, the selection is reset to the status established when the [CAM1] button was pressed.**

Parts and their functions

■Camera unit

<Rear panel (AW-HE50H)>

<Rear panel (AW-HE50S)>

<Bottom panel>
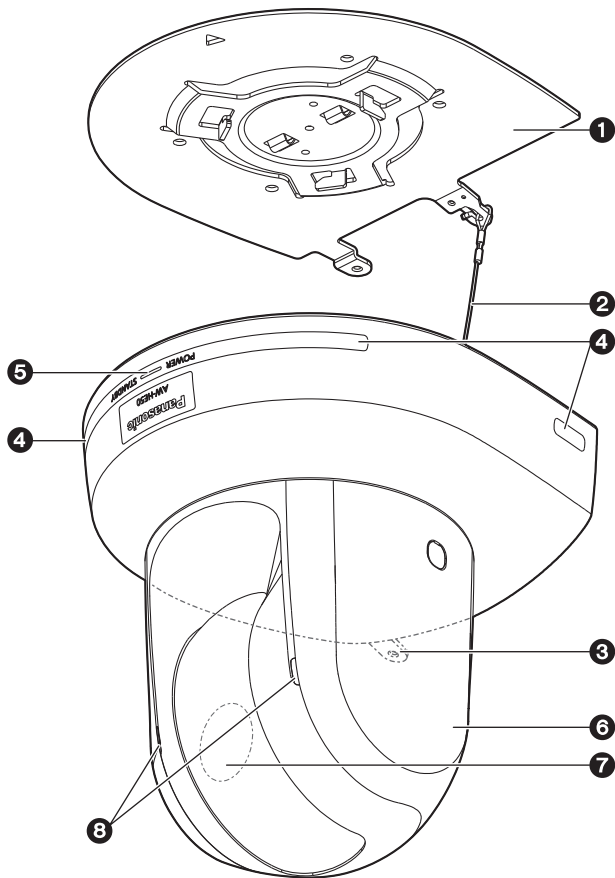
❶ Mount bracket for installation surface (supplied accessory)
Mount this bracket onto the installation surface, and then attach the camera main unit to the bracket.

❷ Drop-prevention wire
Pull out the wire from the bottom panel of the camera main unit, and attach it to the hook of the mount bracket.

❸ Hole for securing the camera pedestal
This hole is provided in the bottom panel of the camera pedestal.

❹ Wireless remote control signal light-sensing area
Light sensors are located in four places; at the front of the camera pedestal and on either side.

❺ Status display lamp
This lights in the following way depending on the status of the unit.
  Orange: When the standby status is established
  Green: When the power is on
  Red: When trouble has occurred in the unit
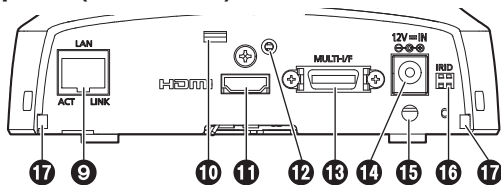 **Green and blinks twice:**
    When a signal matched by the remote control ID has been received from the wireless remote control (optional accessory) while the power is on
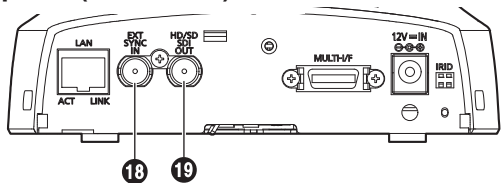 **Orange and blinks twice:**
    When a signal which is not matched by the remote control ID has been received from the wireless remote control (optional accessory) while the power is on
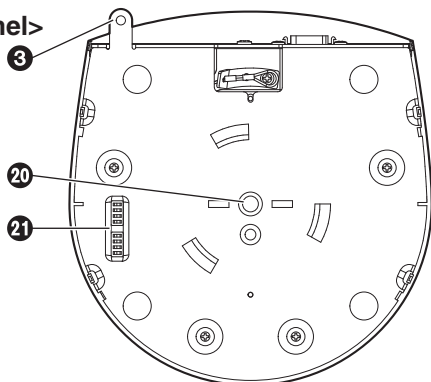
❻ Camera head
This rotates in the horizontal direction.

❼ Lens unit
This rotates in the up and down direction.

❽ Tally lamp
This comes on or goes off in response to the control from the controller but only when "On" has been selected as the tally lamp use setting.

15

Parts and their functions

⑨ LAN connector for IP control [LAN ACT/LINK]
This LAN connector (RJ45) is connected when exercising IP control over the unit from an external device.
Use a cable with the following specifications for the connection to the LAN connector:

> **When connecting through a hub:**
> LAN cable* (category 5 or above, straight cable), max. 100 meters [328 feet]
> **When a hub is not used:**
> LAN cable* (category 5 or above, crossover cable), max. 100 meters [328 feet]
> > ***: Use of an STP (shielded twisted pair) cable is recommended.**

⑩ Anti-theft wire mounting hole
Use this hole to attach the wire bracket.

⑪ HDMI connector [HDMI] (AW-HE50H only)
This is the HDMI video output connector.

⑫ Hole used to secure cable cover
Use the screw provided to secure the cable cover.

⑬ MULTI-I/F connector [MULTI-I/F]
This is the camera's HD/SD component video signal, composite video signal and camera's control signal connector.
Use the multi-interface cable purchased separately or a cable with the DX40M-20P (made by Hirose) connector specifications as the connecting cable.
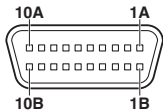
● **The above figure shows the pin layout of the connector on the camera as seen from the outside.**

| Pin No.	Signal name	Pin No.	Signal name
1A	Y OUT	6A	RX+_IN
1B	Y GND	6B	RX–_IN
2A	Pb OUT	7A	TX+_IN
2B	Pb GND	7B	TX–_IN
3A	Pr OUT	8A	GND
3B	Pr GND	8B	GND
4A	VIDEO OUT	9A	RX+_OUT
4B	VIDEO GND	9B	RX–_OUT
5A	TALLY	10A	TX+_OUT
5B	T GND	10B	TX–_OUT

⑭ DC IN connector [12V ⎓ IN ⊖–ⓒ–⊕]
Connect the AC adapter supplied with the unit to this connector to supply the DC 12 V voltage to the unit.

⑮ Cable clamp
This is used to hold the cable connection to the DC IN connector and prevent it from becoming disconnected.

⑯ IR ID switches [IRID]

[CAM1]	[CAM2]	[CAM3]	[CAM4]
IRID	IRID	IRID	IRID
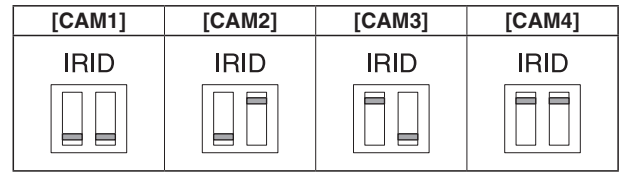
These are used to select the ID of the wireless remote control (optional accessory).
The IR ID switch settings "CAM1" to "CAM4" correspond to the [CAM1] to [CAM4] buttons on the wireless remote control.

⑰ Square holes (×2) for cable cover tabs
The tabs on the two sides of the cable cover are fitted into these holes.

⑱ SYNC IN connector [EXT SYNC IN] (AW-HE50S only)
This is the external sync signal input connector.
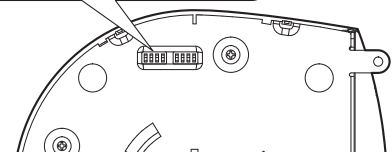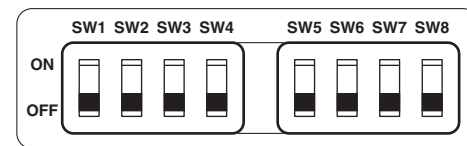This unit supports the BBS (Black Burst Sync) signal as the external sync signal.

⑲ SDI OUT connector [HD/SD SDI OUT] (AW-HE50S only)
This is the SDI video signal output connector.

⑳ Threaded hole (thread: 1/4-20UNC) for mounting the camera
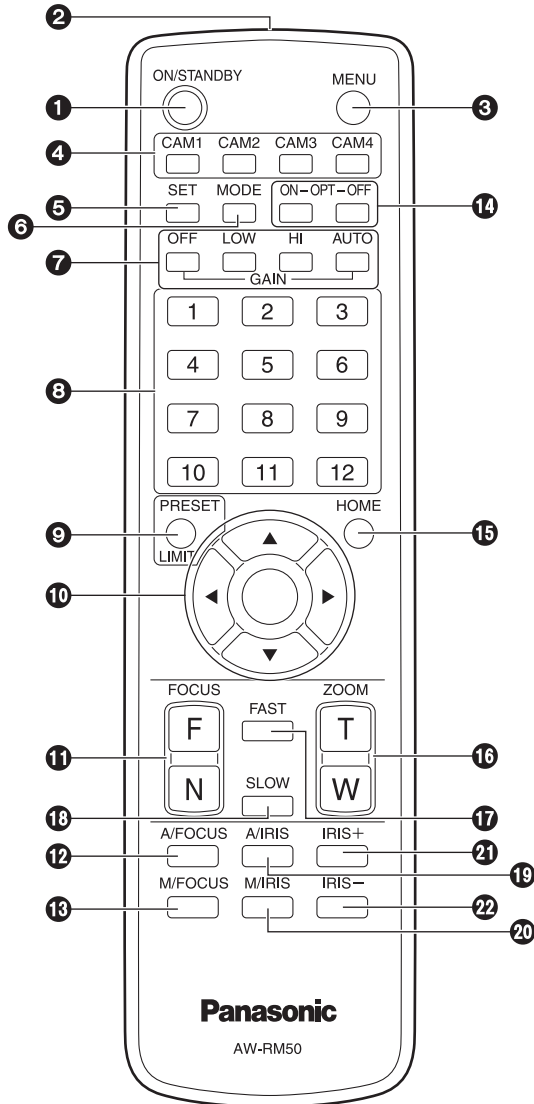Use this hole when mounting the camera on a tripod, etc.

㉑ Service switches

The camera is used with all the switches at the OFF setting.

Parts and their functions

■ Wireless remote control (optional accessory)

Panasonic

AW-RM50

❶ ON/STANDBY button

Each time this is pressed for 2 seconds, operation switches between turning on the unit's power and establishing the standby status.

> **Notes**
>
> ● When operation is transferred to the standby mode: The current pan-tilt position is stored in the memory (as a POWER ON preset), and the panning/tilting moves so that the camera points in the backward-facing direction.
> ● When operation is transferred to the POWER ON mode: Panning/tilting moves to the position which was stored in the memory (as a POWER ON preset) when operation was transferred to the standby mode.

❷ Signal transmission window

❸ MENU button

Each time this is pressed for 2 seconds, operation switches between displaying the unit's menu and exiting the menu.
When it is pressed quickly (for less than 2 seconds) while a menu is displayed, the setting change is canceled. Furthermore, the pan and tilt movement range limits (limiters) are set and released by operating the MENU button, PRESET/LIMIT button and the pan-tilt buttons ([▲], [▼], [◄] and [►]).
For details, refer to "Setting/releasing the limiters" (pages 81 to 82 in the <Operations and Settings>).

❹ CAM1 to CAM4 buttons

These are used to select the units that are to be operated.
Once a button has been selected, the unit corresponding to the selected button can be operated.

❺ SET button

If this button is pressed when one of the "Manual1 to 3" settings has been selected for "Scene" on the camera menu and the AWB A memory or AWB B memory has been selected by the white balance adjustment, the white balance is automatically adjusted and registered in the selected memory.

❻ MODE button

This is used to select the video signals which are output from the unit.
Each time it is pressed, the signals are switched between the color bar signals and camera video signals.

> **Note**
>
> ● The setting for the Down CONV. Mode item when color bars are displayed is fixed at "Squeeze". If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

❼ GAIN buttons [OFF] [LOW] [HI] [AUTO]

These are used to set the gain.
The gain increase can be set in three steps using the [OFF], [LOW] and [HI] buttons.
[LOW] is set to 9 dB, and [HI] is set to 18 dB.
When the [AUTO] button is pressed, the AGC function is activated, and the gain is adjusted automatically depending on the light quantity.
The maximum gain of the AGC function can be set using the menu.

❽ Preset memory call buttons [1] to [12]

These are used to call the information on the unit's directions and other settings, which have been registered in the unit's preset memories No.1 to No.12, and reproduce those settings.
Settings in preset memories No.13 and above cannot be called from the wireless remote control.

Parts and their functions

❾ PRESET/LIMIT button

This is used to register the settings in the preset memories or set or release the limiters.
When a preset memory call button is pressed while the PRESET/LIMIT button is held down, the information on the unit's current direction and other settings is registered in the call button.
Preset memory call buttons [1] to [12] correspond to the unit's No.1 to No.12 preset memories.
Furthermore, the pan and tilt movement range limits (limiters) are set and released by operating the PRESET/LIMIT button, MENU button and the pan/tilt buttons ([▲], [▼], [◄] and [►]).
For details, refer to "Setting/releasing the limiters" (pages 81 to 82 in the <Operations and Settings>).

❿ Pan-tilt buttons and menu operation buttons [▲] [▼] [◄] [►] [○]

(1) These are used to change the unit's direction.
The unit is tilted in the up/down direction using the [▲] and [▼] buttons and panned in the left/right direction using the [◄] and [►] buttons.
The [○] button does not work during tilting and panning.
When the [▲] or [▼] and [◄] or [►] buttons are pressed at the same time, the unit moves diagonally.

(2) The buttons are used for menu operations when the unit displays the menus.
Use the [▲], [▼], [◄] and [►] buttons to select the menu items.
When a selected item has a sub-menu, the sub-menu will be displayed by pressing the [○] button.
When the cursor is aligned with a particular item and the [○] button is pressed on the setting menu at the bottom hierarchical level, the setting of the selected item blinks.
When the [○] button is pressed after the setting has been changed using the [▲], [▼], [◄] and [►] buttons, the setting stops blinking, and the new setting is entered.
With a regular menu, the new setting is reflected immediately after it has been changed if the change was made from the setting in the blinking status, but there are some menus (Scene, Format and Initialize) where it is reflected only after the [○] button has been pressed, the blinking has stopped and the new setting has been entered.
If the MENU button is pressed quickly (for less than 2 seconds) while the setting is in the blinking status, the change will be canceled, and the setting selected prior to the change will be restored.

⓫ FOCUS buttons [F] [N]

These are used to adjust the lens focus manually when the manual setting is established for the lens focus.
The focus is adjusted in the far using the [F] button and in the near using the [N] button.

⓬ A/FOCUS button

This is used when automatically adjusting the lens focus.

⓭ M/FOCUS button

This is used when manually adjusting the lens focus.
The FOCUS buttons ([F] and [N]) are used when performing the actual adjustment.

⓮ OPT buttons [ON] [OFF]

These are used for future expansion of the functions.
They are not used at the present time.

⓯ HOME button

When this is pressed for 2 seconds, the unit's direction (panning or tilting) returns to the reference position.

⓰ ZOOM buttons [T] [W]

These are used to adjust the lens zoom.
The zoom is adjusted in the wide-angle using the [W] button and in the telephoto using the [T] button.

⓱ FAST button

This is used to change the movement speed at which the panning, tilting, zooming and focusing operations are performed to the high speed.

> **Note**
>
> ● The operating speed for panning and tilting when the preset memory settings have been called can be changed using the Preset Speed item of the camera menu.

⓲ SLOW button

This is used to change the movement speed at which the panning, tilting, zooming and focusing operations are performed to the low speed.

⓳ A/IRIS button

This establishes the setting for adjusting the lens iris automatically in line with the light quantity.

⓴ M/IRIS button

This establishes the setting for adjusting the lens iris manually.
The IRIS + and IRIS – buttons are used when performing the actual adjustment.

㉑ IRIS + button

This is used to adjust the lens iris in the opening direction.

㉒ IRIS – button

This is used to adjust the lens iris in the closing direction.

Setting the remote control IDs

The wireless remote control (optional accessory) is capable of operating up to four units.
IDs are used to set which units are selected when the [CAM1], [CAM2], [CAM3] and [CAM4] buttons on the wireless remote control have been pressed.

● When using a multiple number of units, set a different remote control ID for each unit.
● When using one unit, set the remote control ID to "CAM1" unless the setting needs to be changed.

Setting procedure
Operate the IR ID switch on the units rear panel, and select "CAM1", "CAM2", "CAM3" or "CAM4" as the remote control ID. (See page 16)
The IR ID switch settings "CAM1" to "CAM4" correspond to the [CAM1] to [CAM4] buttons on the wireless remote control.
(The factory setting is "CAM1".)

IR ID switches

[CAM1] to [CAM4] buttons
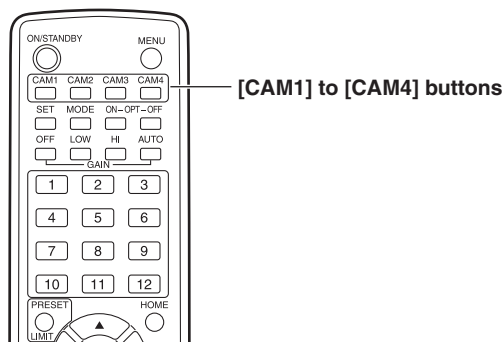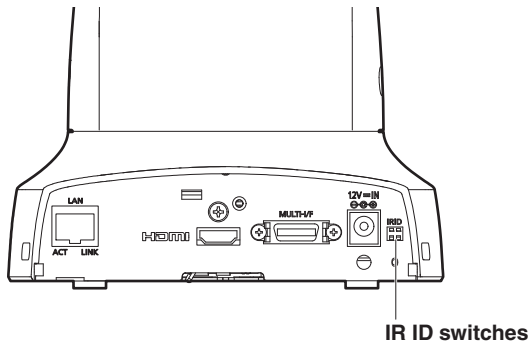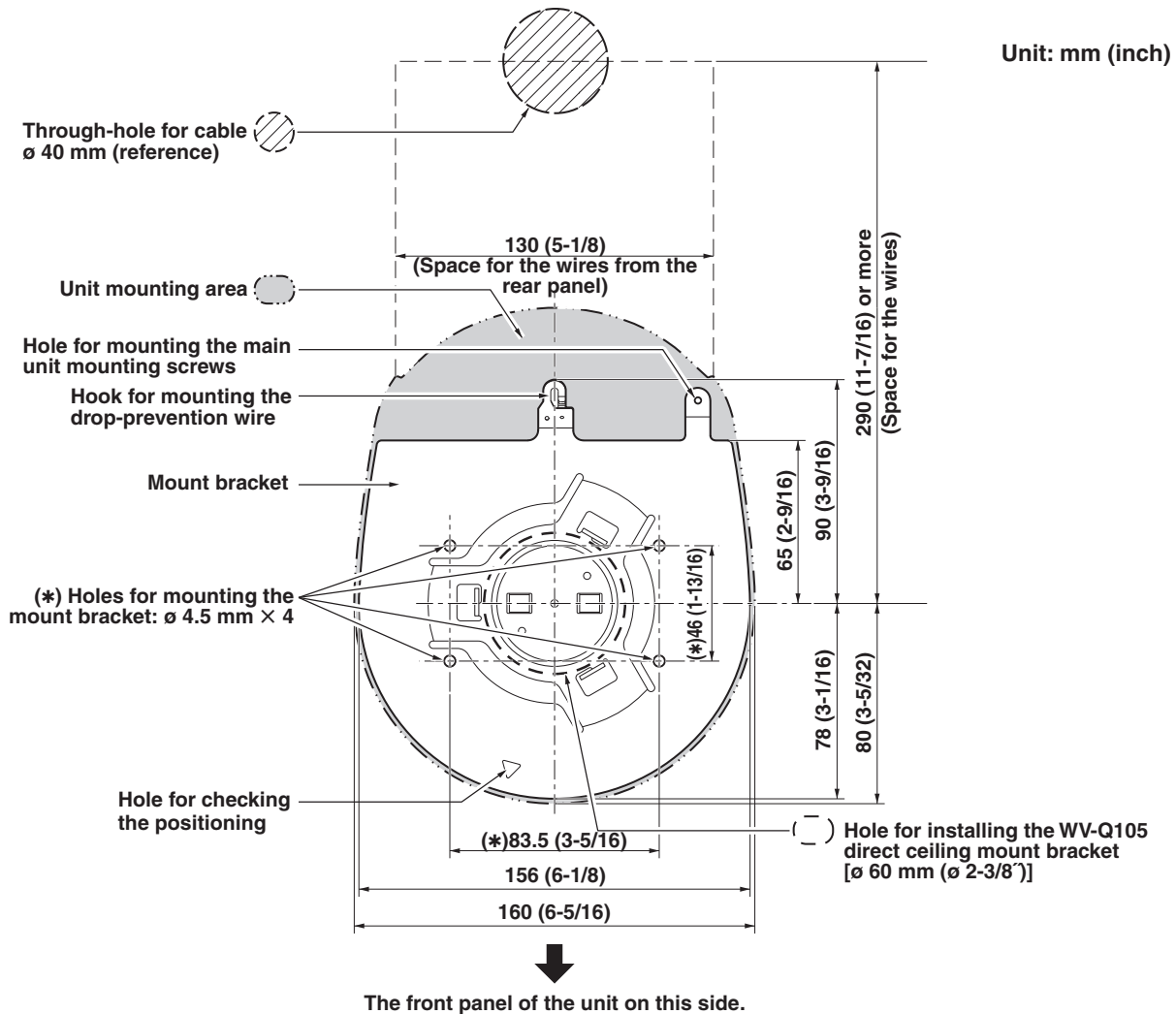
How to install and connect the unit

Be absolutely sure to read through the "Installation precautions" on pages 10 to 11.

The procedure given here is for the kind of installation where the unit is suspended from an overhead surface, but the same steps are followed for a stand-alone installation.

> If the ceiling panel is not strong enough to bear the unit's weight, use the kind of mount bracket that is supported by anchor bolts between the concrete ceiling and ceiling panel. The unit supports the WV-Q105 direct ceiling mount bracket which is used solely for combination cameras. Use this bracket to install the unit. (See page 24)
> In a case like this, the holes (ø 60 mm [ø 2-3/8˝]) for installing the direct ceiling mount bracket on the ceiling must be drilled in the ceiling panel.
> It is also recommended that you provide an inspection space or opening for access purposes in the area near where the equipment is installed in order to facilitate installation and the wiring connections work.

1 Check the mounting space.

- Refer to the illustration, and determine where the unit is to be installed and in which direction it should be mounted. Factor in the unit mounting area and include space for the wires extending from its rear panel.
- The asterisk (✱) in the illustration marks the position and dimensions of the hole for mounting the mount bracket.

Unit: mm (inch)

Through-hole for cable ø 40 mm (reference)

130 (5-1/8) (Space for the wires from the rear panel)

Unit mounting area

Hole for mounting the main unit mounting screws

Hook for mounting the drop-prevention wire

Mount bracket

(✱) Holes for mounting the mount bracket: ø 4.5 mm × 4

Hole for checking the positioning

290 (11-7/16) or more (Space for the wires)

65 (2-9/16)

90 (3-9/16)

(✱)46 (1-13/16)

78 (3-1/16)

80 (3-5/32)

(✱)83.5 (3-5/16)

156 (6-1/8)

160 (6-5/16)

( ) Hole for installing the WV-Q105 direct ceiling mount bracket [ø 60 mm (ø 2-3/8˝)]

**The front panel of the unit on this side.**

Notes

- Before proceeding to install and connect the main unit, connect the LAN cable, video output cable, interface cable, AC adapter cable and coaxial cables in the space above the ceiling panel, and then pass the cables through the cable holes.
- For a power outlet which is used on the ceiling, be absolutely sure to take measures to deal with the tracking that may be caused by the accumulation of dust and other foreign matter.

How to install and connect the unit

2 **Mount the mount bracket onto the installation surface.**

- Use the bracket mounting screws (M4, bind-head: 10 mm long) supplied with the unit.
- For proper clamping torque, securely attach the screws using the specified tools.

Screw diameter	Clamping torque
M4	1.47 N · m (15 kgf · cm)

**Bracket mounting screws × 4 (supplied)
(M4, bind-head)**
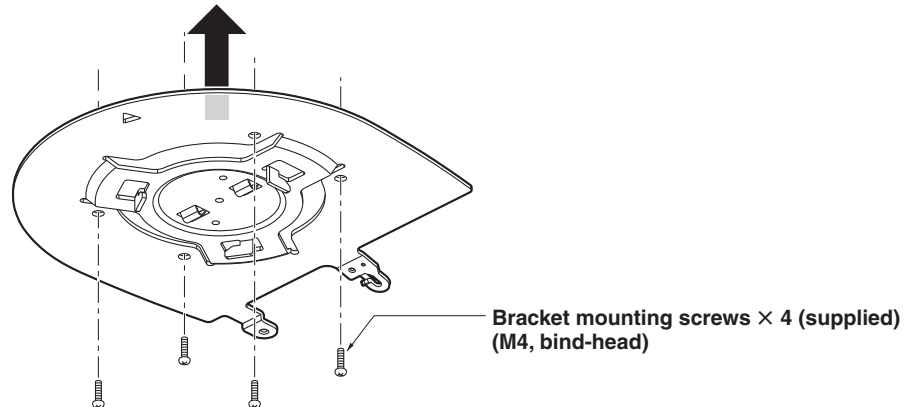
Note

- Use only the screws supplied with the unit. Do not use any other screws such as wood screws, nails, etc.

---

3 **Attach the drop-prevention wire.**

- Pull out the drop-prevention wire from the bottom panel of the unit, and engage the end with the wire ring through the hole of the mount bracket hook.
- Pull the drop-prevention wire, and check that it has been attached securely to the hook.
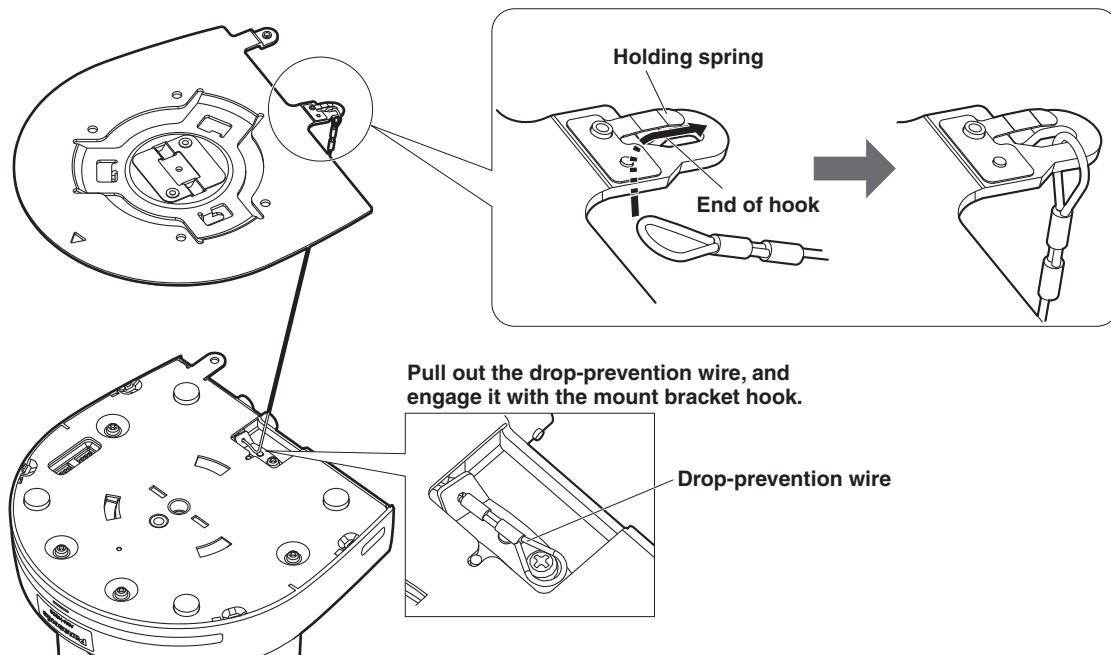
Holding spring

End of hook

**Pull out the drop-prevention wire, and
engage it with the mount bracket hook.**
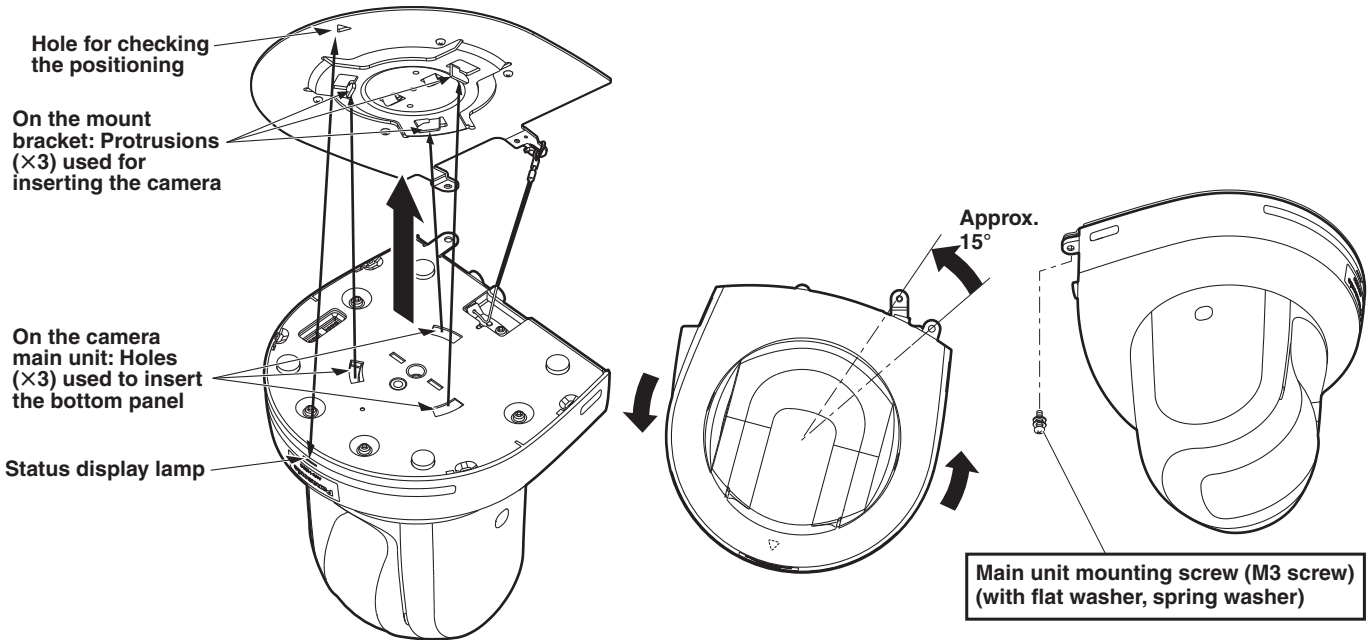
Drop-prevention wire

Notes

- Do not do this work while holding the camera head since doing so may result in malfunctioning of the unit.
- The drop-prevention wire is designed to be used for installation where the unit is suspended from an overhead surface so do not subject it to the weight of units other than the unit.

How to install and connect the unit

4 Mount the unit.

● Align the position of the hole for checking the positioning with the status display lamp.
● Align the holes on the camera main unit used to insert the bottom panel with the protrusions on the mount bracket used for inserting the camera, push the bracket and camera firmly together, and rotate the main unit by about 15 degrees in the direction of the arrow.
● Secure the mount bracket to the unit using the main unit mounting screws (M3) as supplied.
● Attach the mount bracket securely with the prescribed tool using the clamping torque below.
  Be absolutely sure to verify that none of the screws are loose.

Screw diameter	Clamping torque
M3	0.78 N·m (8 kgf·cm)

Hole for checking the positioning

On the mount bracket: Protrusions (×3) used for inserting the camera

On the camera main unit: Holes (×3) used to insert the bottom panel

Status display lamp

Approx. 15°

Main unit mounting screw (M3 screw) (with flat washer, spring washer)

Notes

● Do not do this work while holding the camera head since doing so may result in malfunctioning of the unit.
● Use only the screws supplied. Do not use any other screws.
● Check that the unit has been mounted securely with no tilting or wobbling.

---

5 Check the mounting.
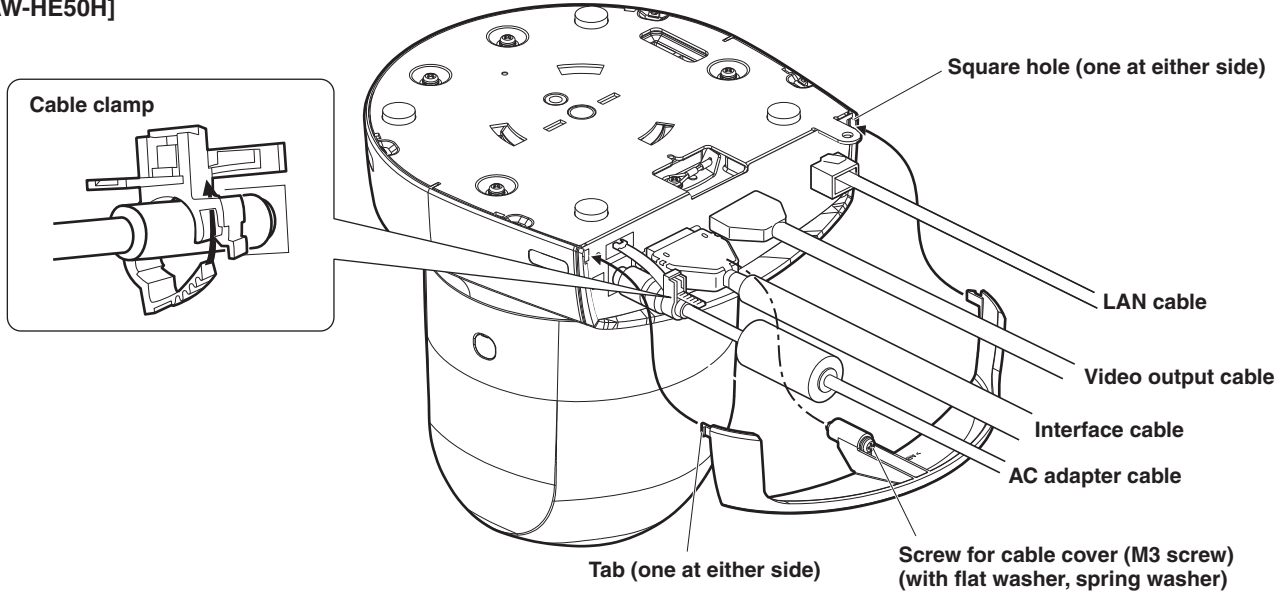
Check out the following points.

• **The main unit mounting screws must be mounted securely.**
• **The unit must not tilt, and it must be mounted exactly.**
• **The unit must be securely installed.**
• **The unit pedestal part must not rotate even when an attempt is made to turn it.**
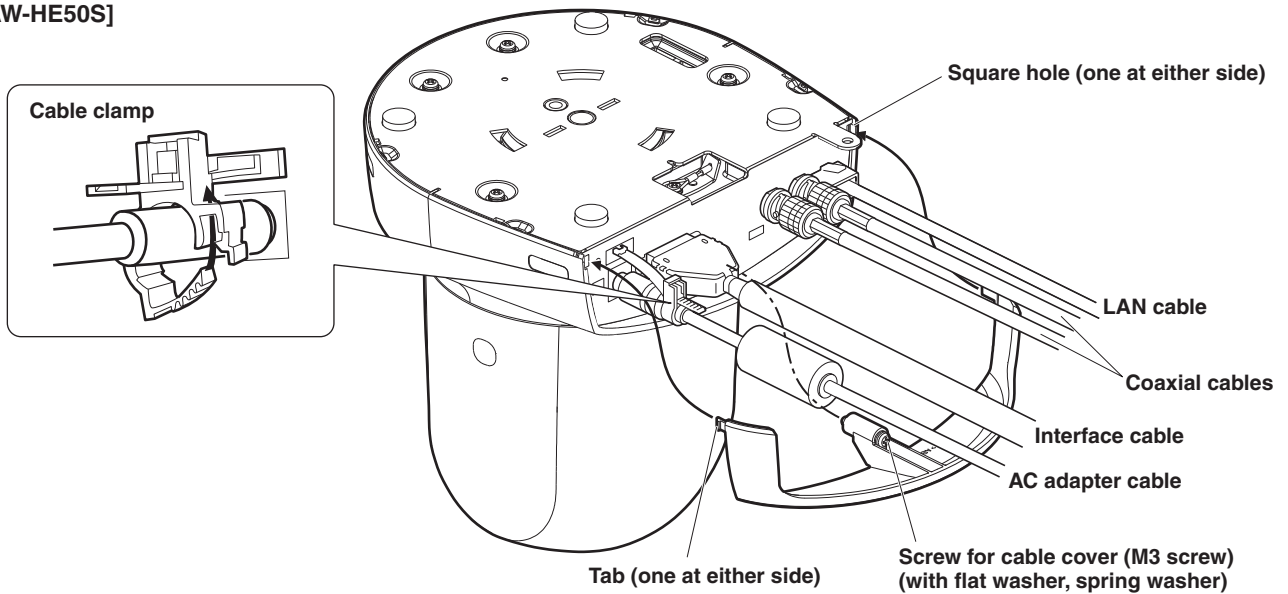
How to install and connect the unit

6 Connect the rear panel connectors.

Anchor the AC adapter cable in place using the cable clamp.

[AW-HE50H]

Cable clamp

Square hole (one at either side)

LAN cable

Video output cable

Interface cable

AC adapter cable

Tab (one at either side)

Screw for cable cover (M3 screw)
(with flat washer, spring washer)

[AW-HE50S]

Cable clamp

Square hole (one at either side)

LAN cable

Coaxial cables

Interface cable

AC adapter cable

Tab (one at either side)

Screw for cable cover (M3 screw)
(with flat washer, spring washer)

7 Attach the cable cover.

● Fit the two tabs on the cable cover into the square mounting hole at either side of the rear panel.
● Secure the cable cover using the screw (M3 × 20 mm) provided.

Screw diameter	Clamping torque
M3	0.78 N·m (8 kgf·cm)

Note

● Engage the tabs on the cable cover so they fit into place perfectly, and check that the cover is not rickety.

How to install and connect the unit
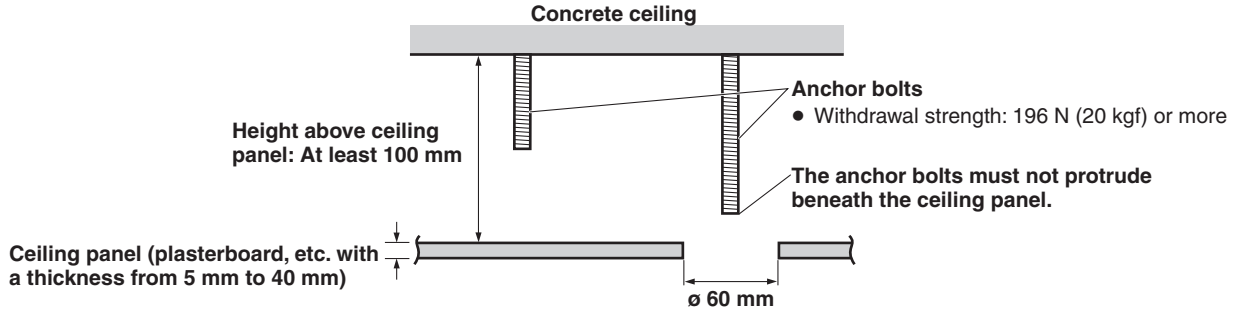
■ When using the WV-Q105 (optional accessory)

It is recommended that you provide an inspection opening or other such space for access purposes in the area near where the equipment is installed in order to facilitate installation and the wiring connections work.

Before mounting the mount bracket, check that the installation location is strong enough to withstand the total mass (approx. 2.0 kg [4.41 lbs.]) which will be exerted once the camera is mounted.

Use the mount bracket where the space between the ceiling panel and the concrete ceiling is at least 100 mm high.

The bracket can be mounted where the thickness of the ceiling panel ranges from 5 mm to 40 mm.

The drop-prevention wire (supplied with the WV-Q105) must be used when mounting the direct ceiling mount bracket.
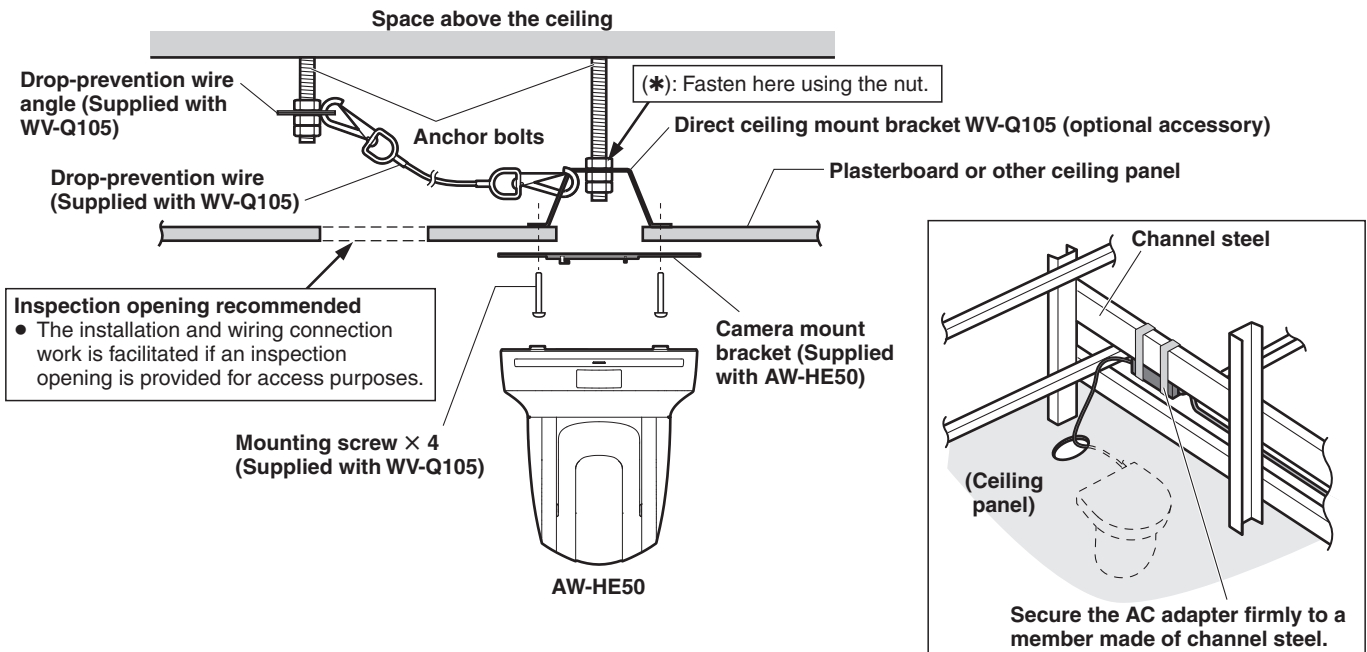
Concrete ceiling

Anchor bolts
● Withdrawal strength: 196 N (20 kgf) or more

The anchor bolts must not protrude beneath the ceiling panel.

Height above ceiling panel: At least 100 mm

Ceiling panel (plasterboard, etc. with a thickness from 5 mm to 40 mm)

ø 60 mm

1 **Refer to the Operating Instructions of the WV-Q105 direct ceiling mount bracket, and attach the WV-Q105 as well as the drop-prevention wire angle and drop-prevention wire supplied with the WV-Q105 to the anchor bolts.**

> **Mounting the anchor bolts and direct ceiling mount bracket (✽)**
> This job is facilitated if the direct ceiling mount bracket is loosely secured to the ceiling panel in one place, and the direct ceiling mount bracket and anchor bolts are vertically aligned before the nuts are tightened up.

2 **First, remove the screws which were loosely fastened in step 1, and then align the camera mount bracket of the AW-HE50 with the screw holes in the WV-Q105 direct ceiling mount bracket and mount it in place.**
   - ● Use the mounting screws (the M4-L60 Phillips head screws with adhesive) supplied with the WV-Q105 as the mounting screws.
   - ● Fasten the AC adapter securely to the bottom or other surface of the reinforcing member made of channel steel where dust and other foreign matter will not accumulate.
   - ● Do not place the AC adapter directly onto the ceiling panel or other such surface.

Space above the ceiling

Drop-prevention wire angle (Supplied with WV-Q105)

Anchor bolts

(✽): Fasten here using the nut.

Direct ceiling mount bracket WV-Q105 (optional accessory)

Drop-prevention wire (Supplied with WV-Q105)

Plasterboard or other ceiling panel

Inspection opening recommended
● The installation and wiring connection work is facilitated if an inspection opening is provided for access purposes.

Mounting screw × 4 (Supplied with WV-Q105)

Camera mount bracket (Supplied with AW-HE50)

AW-HE50

Channel steel

(Ceiling panel)

Secure the AC adapter firmly to a member made of channel steel.

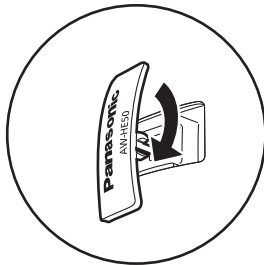**3** **Attach the AW-HE50 to the mount bracket.**

Changing the direction of the nameplate

When the unit is mounted on the ceiling, its nameplate will be upside down.
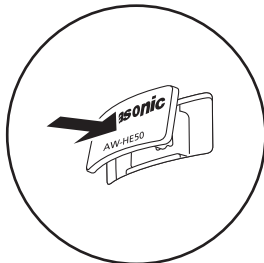The direction of the unit's nameplate can be changed.

1 **Push in the part indicated by the arrow, and pull out the nameplate.**
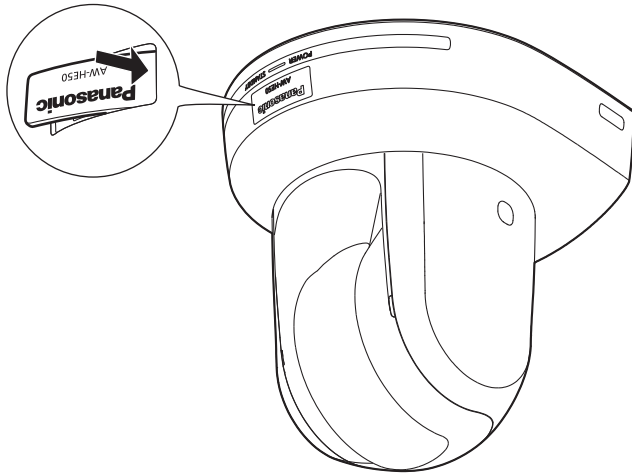
2 **Change the direction of the nameplate.**

3 **Push the nameplate back into place.**

Removing the camera

1 **Turn off the circuit breaker and power.**

2 **Remove the cable cover.**
- Remove the screw (M3) for the cable cover used to secure the cover.
- Push the tab parts of the cover to disengage the cover.

3 **Disconnect the cables.**

Disconnect the power cable, video cable, and control cable, etc.

4 **Remove the main unit mounting screw used to secure the unit and mount bracket.**

5 **Push the unit (①). Turn it approximately 15 degrees away from the installed position (②), and remove it (③).**

Main unit mounting screw (M3 screw) (with flat washer, spring washer)

③ Approx. 15°
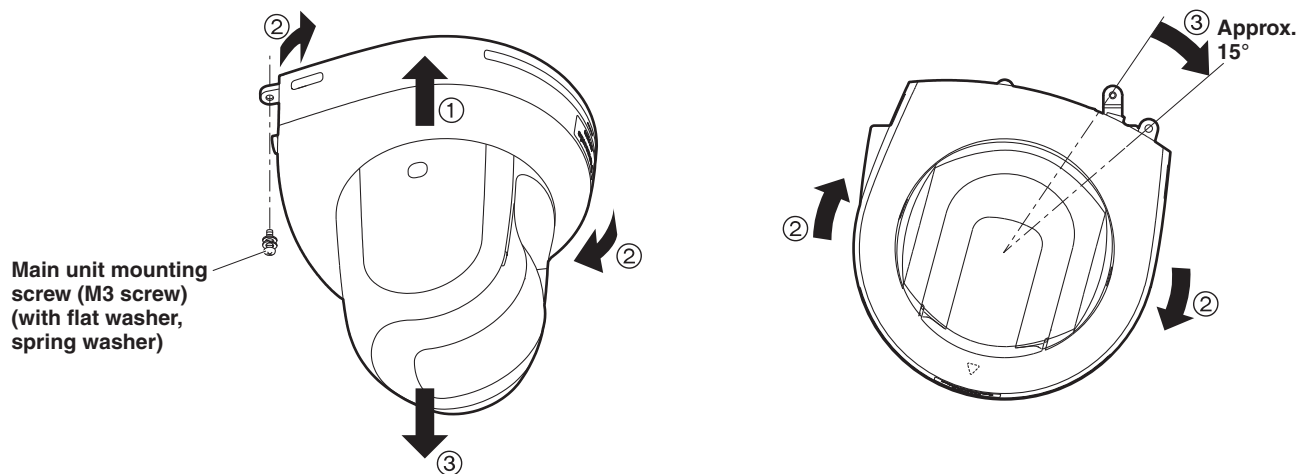
Note
- Do not do this work while holding the camera head since doing so may result in malfunctioning of the unit.

6 **Disengage the drop-prevention wire from the mount bracket.**

Stand-alone installation (when the mount bracket is going to be used)

The same steps are followed as for the kind of installation where the unit is suspended from an overhead surface
(pages 20 to 23).

1 Check the mounting space.

> **Note**
> ● As with installing the unit suspended from an overhead surface, carefully check the space where the unit will be
> mounted, and then decide if it is appropriate to install the unit in that space.
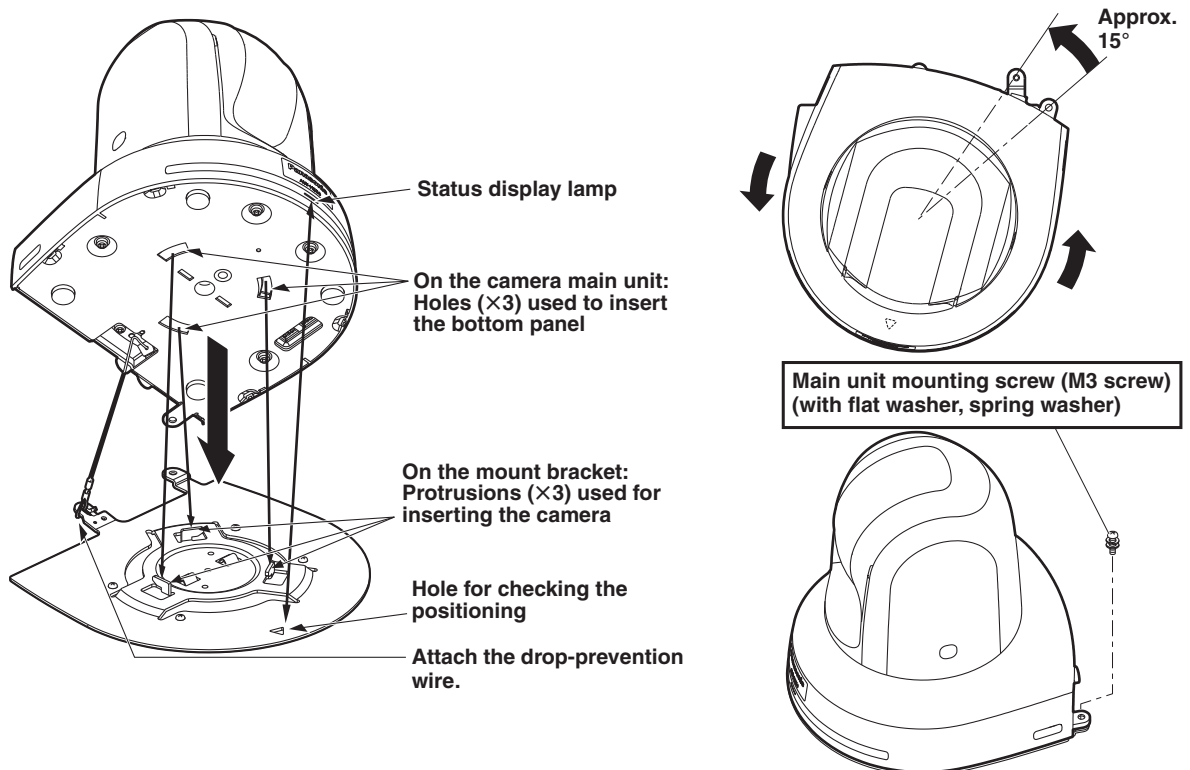
2 Mount the mount bracket onto the installation surface.

**Bracket mounting screws × 4 (supplied)
(M4, bind-head)**
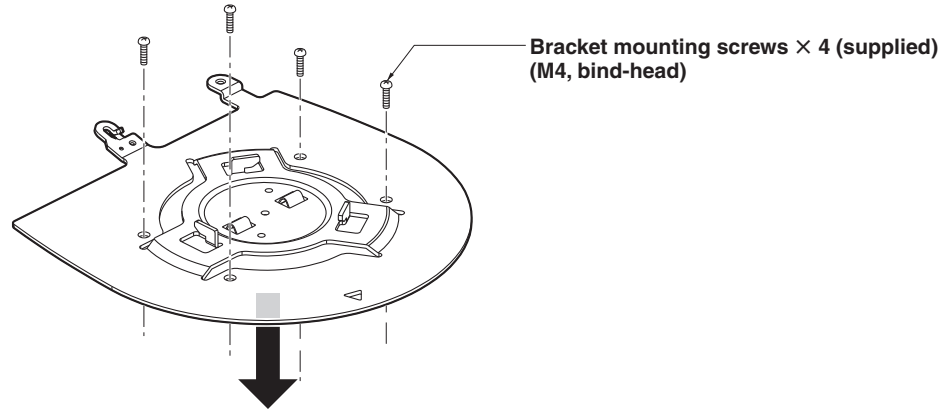
3 Attach the drop-prevention wire.

4 Mount the unit.

● Align the position of the hole for checking the positioning with the status display lamp.
● Align the holes on the camera main unit used to insert the bottom panel with the protrusions on the mount bracket used
  for inserting the camera, push the bracket and camera firmly together, and rotate the main unit by about 15 degrees in
  the direction of the arrow.
● Secure the mount bracket to the unit using the main unit mounting screws (M3) as supplied.
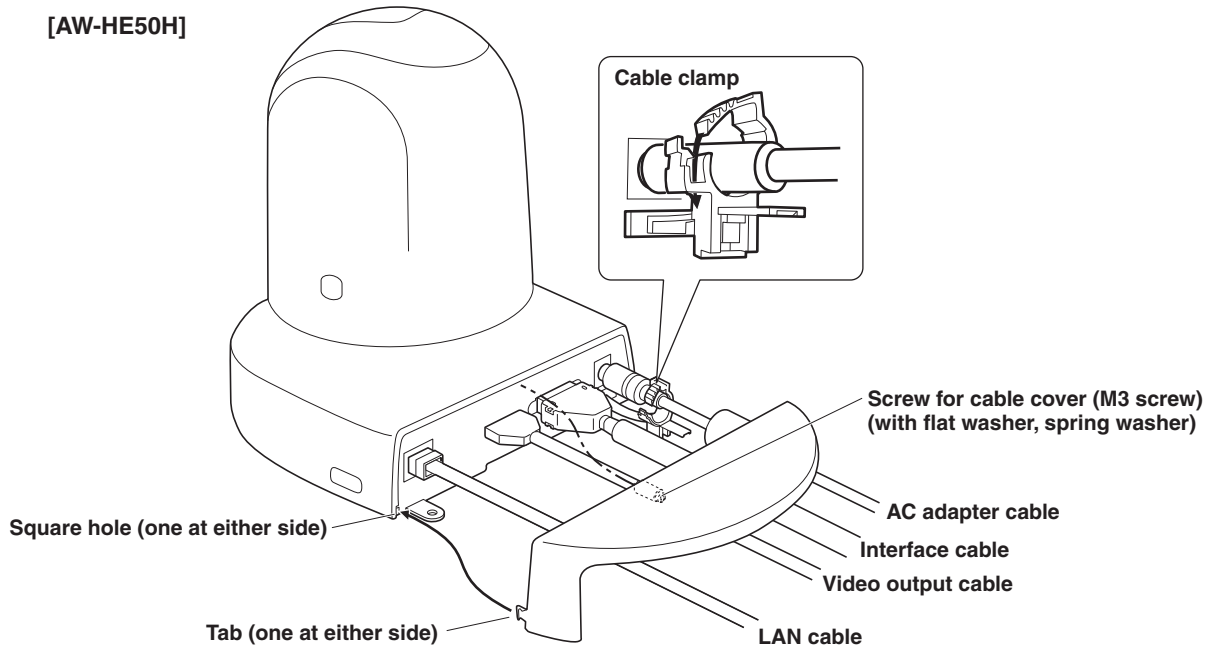● For proper clamping torque, securely attach the screws using the specified tools.

**Approx.
15°**

Status display lamp

**On the camera main unit:
Holes (×3) used to insert
the bottom panel**

**On the mount bracket:
Protrusions (×3) used for
inserting the camera**

**Hole for checking the
positioning**

**Attach the drop-prevention
wire.**

**Main unit mounting screw (M3 screw)
(with flat washer, spring washer)**

27

Stand-alone installation (when the mount bracket is going to be used)

5 Check the mounting.

6 Connect the rear panel connectors.

[AW-HE50H]

Cable clamp

Screw for cable cover (M3 screw)
(with flat washer, spring washer)

AC adapter cable

Interface cable

Video output cable

Square hole (one at either side)

LAN cable

Tab (one at either side)

[AW-HE50S]

Cable clamp

Screw for cable cover (M3 screw)
(with flat washer, spring washer)

AC adapter cable

Interface cable

Coaxial cables

Square hole (one at either side)

LAN cable

Tab (one at either side)
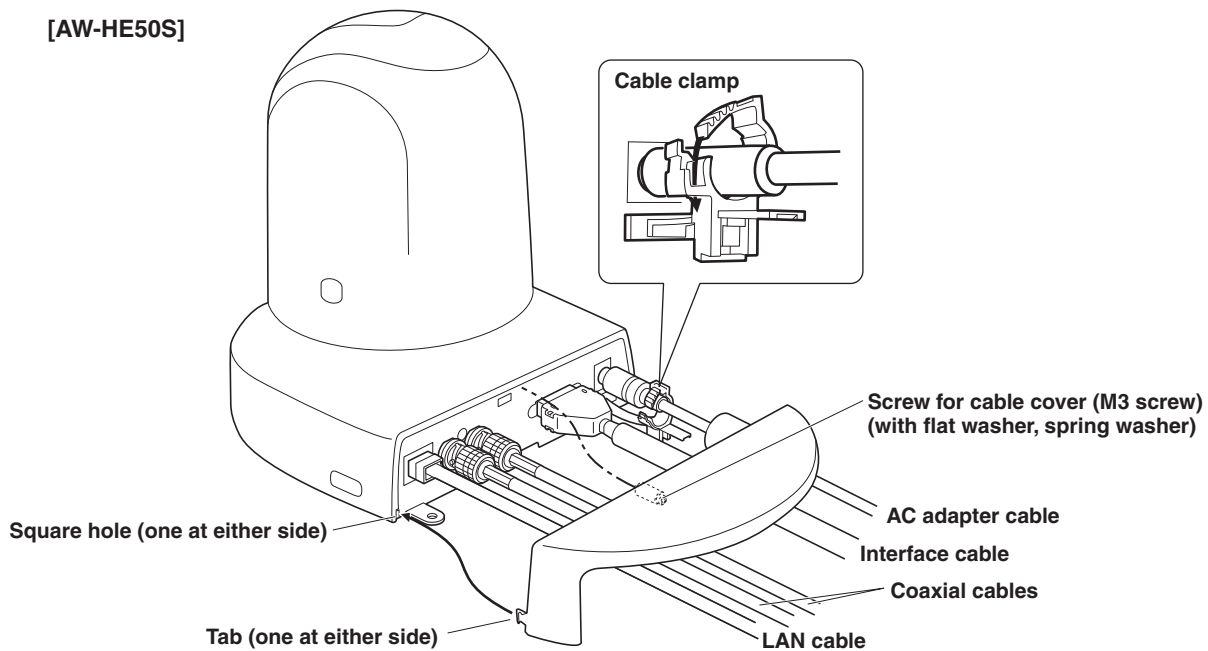
7 Attach the cable cover.

Stand-alone installation (when the mount bracket is not going to be used)

■ When installing the unit on a desktop

Place the unit flat on the surface.

Notes

- Install the unit in a stable location which will not be susceptible to shaking. If the unit is installed in a location which is susceptible to shaking, this will cause the unit's images to shake in turn.
- Take care not to allow the unit to fall or otherwise be damaged during installation.
- When carrying the unit, do not hold it by its head.
- Do not take hold of the camera head or rotate it. Doing so may cause malfunctioning.
- Take care not to pull the connected cables. Doing so may cause the unit to fall and/or it may result in injury.

**Ensure that the unit will not fall off.**

OK   NG
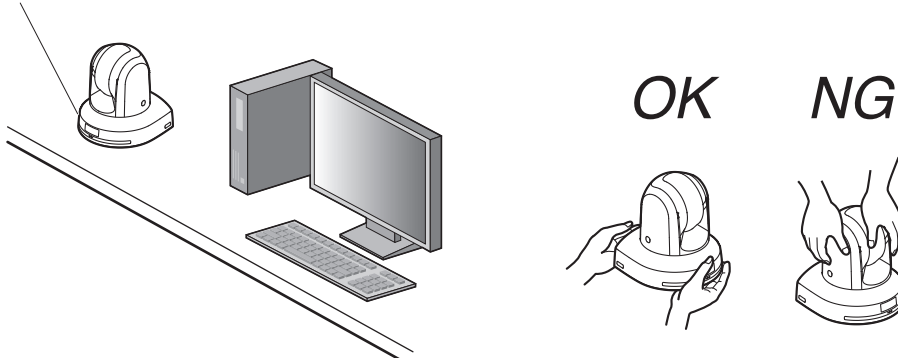
■ When mounting the unit on a tripod

Attach the tripod to the threaded holes for mounting the camera on the camera's bottom panel.
Place the tripod on a completely flat and level surface.
Tighten the screws by hand to mount the tripod securely.
Use screw for mounting the tripod that satisfy the following standard.

Screw for mounting tripod (1/4-20UNC)

**4.5 mm to 6 mm
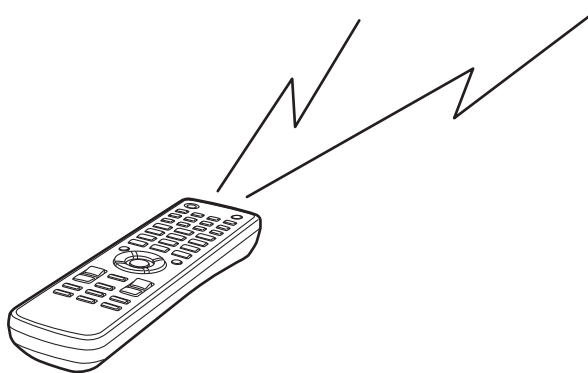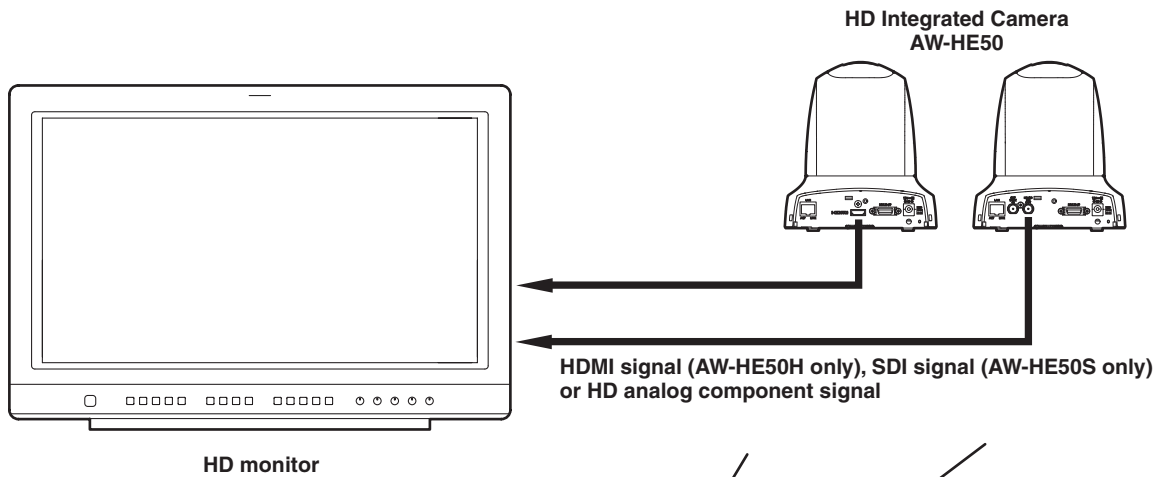(0.18 to 0.24 inches)**
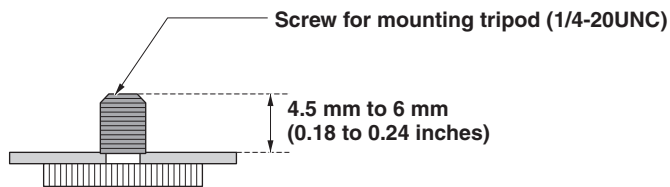
Notes

- Do not install the unit where people will be passing back and forth.
- When using the unit mounted on a tripod, do not put the tripod high above the floor level.
- Mount the unit securely so there is no looseness. Looseness may cause the unit to fall off and/or result in injuries.
- When the unit is going to be used for a prolonged period of time, take steps to ensure that the unit will not topple or fall over and that it will not fall off or fall down. After using the unit, restore the installation location to its original state without delay.

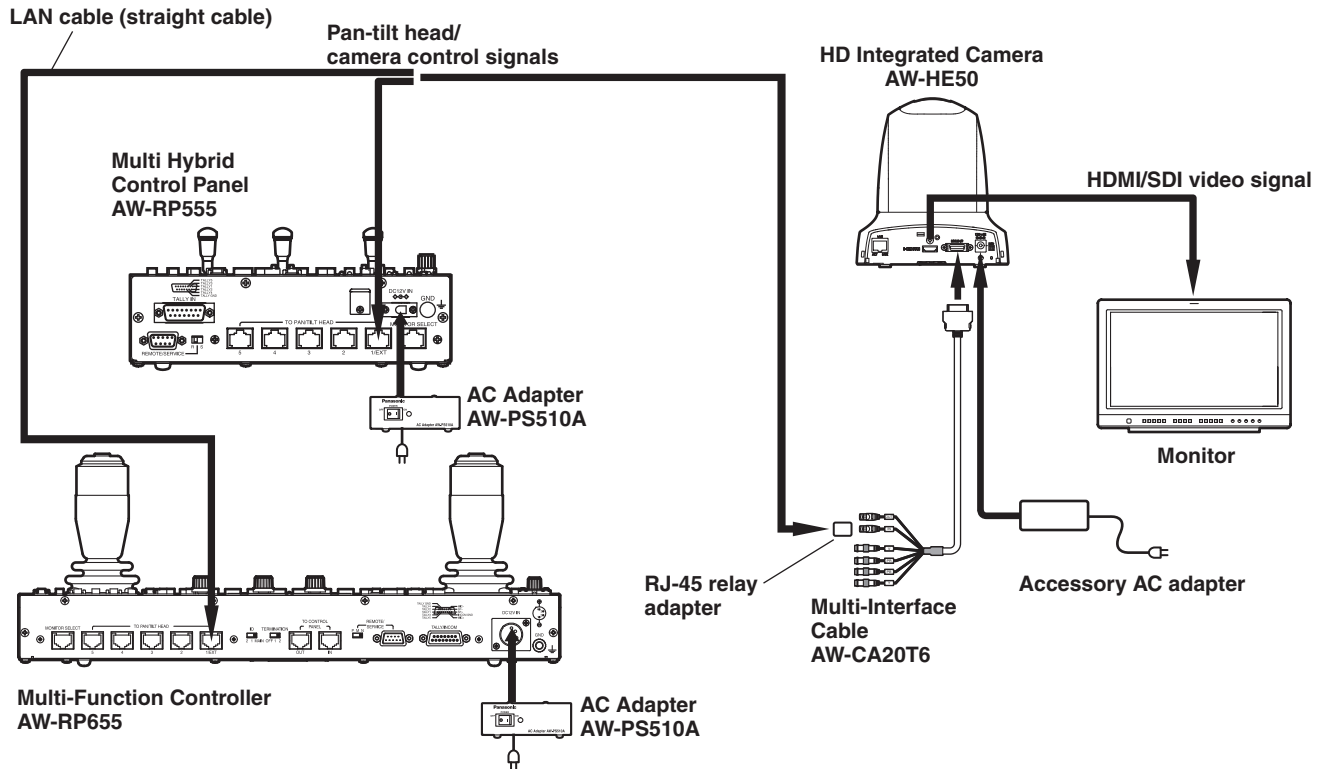# *Connections*

■ Connections with an HD monitor

**HD Integrated Camera
AW-HE50**

**HDMI signal (AW-HE50H only), SDI signal (AW-HE50S only)
or HD analog component signal**

HD monitor

Wireless remote control (optional accessory)
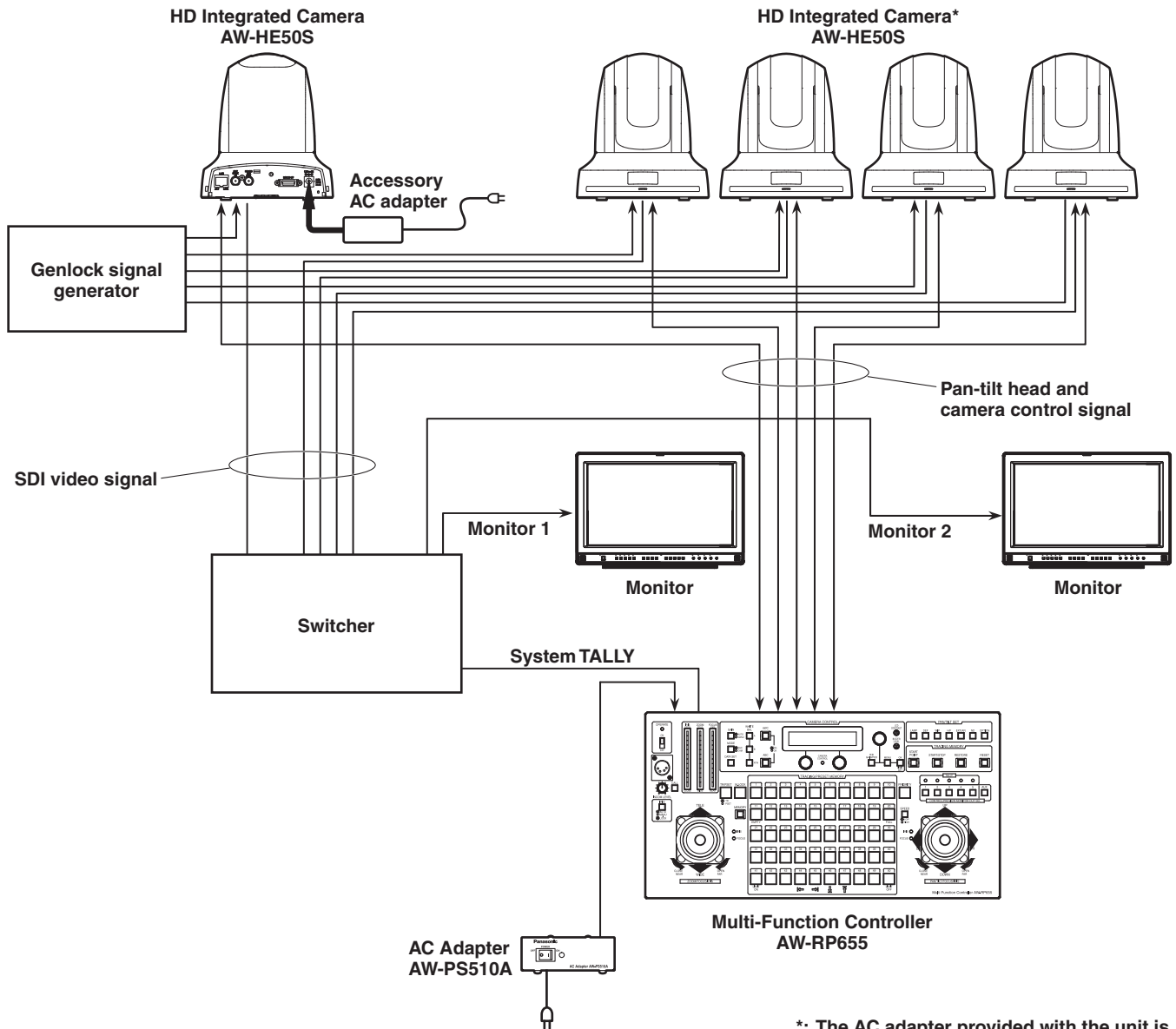Up to four units can be operated using one remote control.

Connections

■ Connections with a controller (AW-RP655 or AW-RP555)

LAN cable (straight cable)

Pan-tilt head/ camera control signals

HD Integrated Camera AW-HE50

Multi Hybrid Control Panel AW-RP555

HDMI/SDI video signal

AC Adapter AW-PS510A

Monitor

RJ-45 relay adapter

Accessory AC adapter

Multi-Interface Cable AW-CA20T6

Multi-Function Controller AW-RP655

AC Adapter AW-PS510A

Connections

■System example 1

HD Integrated Camera
AW-HE50S

HD Integrated Camera*
AW-HE50S

Accessory
AC adapter

Genlock signal
generator

Pan-tilt head and
camera control signal

SDI video signal

Monitor 1

Monitor 2

Monitor

Monitor

Switcher

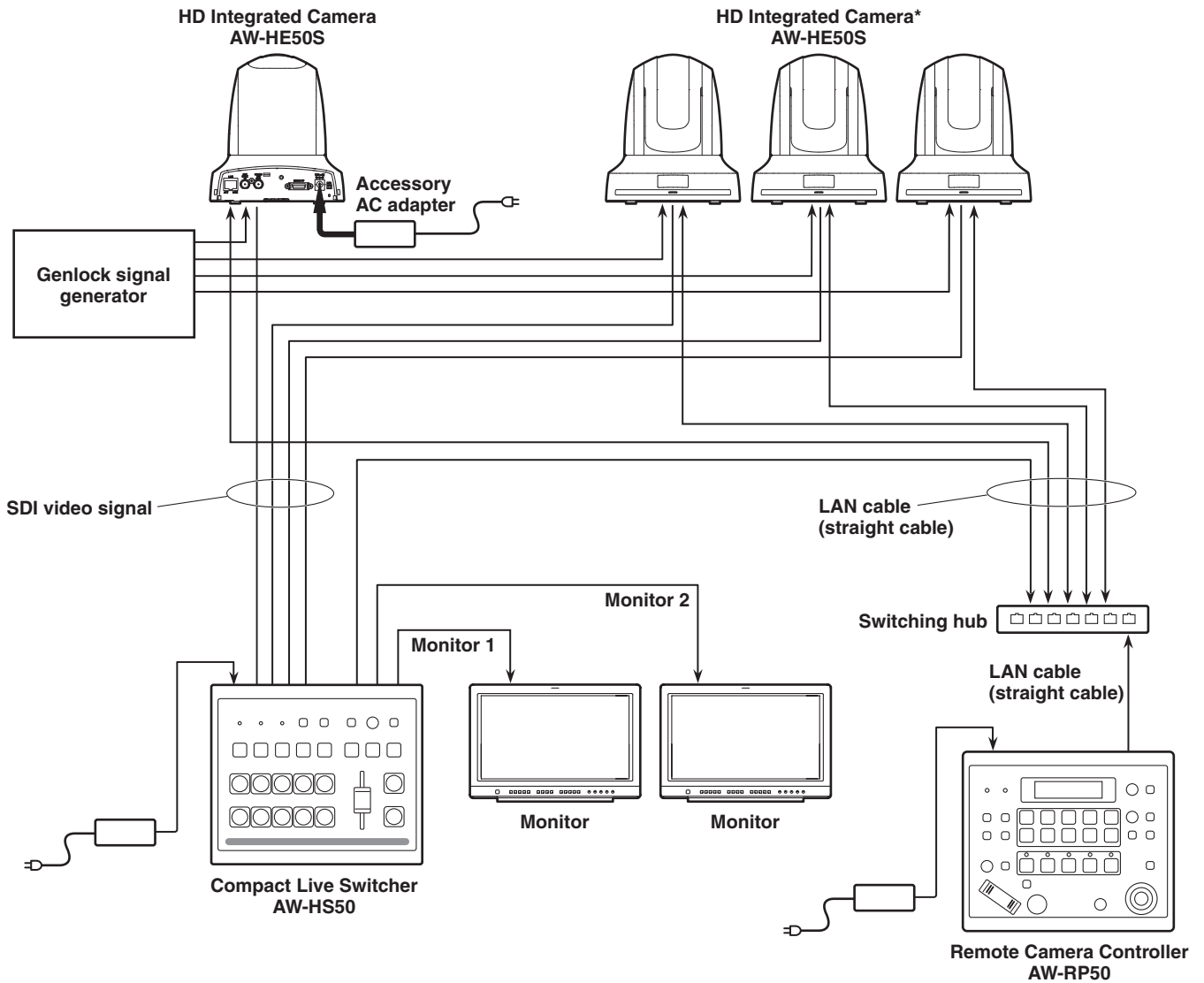System TALLY

Multi-Function Controller
AW-RP655

AC Adapter
AW-PS510A

*: The AC adapter provided with the unit is
not shown in the above figure.

● SDI output is supported only by the AW-HE50S.

Connections

■ System example 2

HD Integrated Camera
AW-HE50S

HD Integrated Camera*
AW-HE50S

Accessory
AC adapter

Genlock signal
generator

SDI video signal

LAN cable
(straight cable)

Monitor 2

Monitor 1

Switching hub

LAN cable
(straight cable)

Monitor

Monitor

Compact Live Switcher
AW-HS50

Remote Camera Controller
AW-RP50

*: The AC adapter provided with the unit is
not shown in the above figure.

● SDI output is supported only by the AW-HE50S.

Network settings

■ Installing the software

Be absolutely sure to read through the "Readme.txt" on the CD-ROM supplied with the unit first before attempting to install the software.

Software provided on the CD-ROM

● **Easy IP Setup Software (EasyIPSetup.exe)**
   This software establishes the unit's network settings. For details, refer to the sections that follow.

■ Use the Easy IP Setup Software to establish the unit's settings

The settings related to the unit's network can be established using the Easy IP Setup Software supplied.
To establish the settings for a multiple number of units, the settings must be selected for each camera involved.
If the settings cannot be established using the Easy IP Setup Software, select the settings separately for the unit and PC on the network page of the setting menu. For further details, refer to the "Operating Instructions — <Operations and Settings>" (PDF file).

✎ Memo ✎

● If the Easy IP Setup Software is run when using Microsoft® Windows® XP Home Edition SP3, an important warning screen concerning security may appear.
   If this is the case, click the [Unblock(U)] button.
● If the Easy IP Setup Software is run when using Microsoft® Windows Vista®, you may be prompted to enter the password for the Administrator account.
   If this is the case, disable "User Account Control" from Control Panel.
● The Easy IP Setup Software is designed in such a way that when around 20 or more minutes have passed after the power was turned on, the MAC address and IP address of the target camera will no longer be displayed. It does this to improve the security.
   → When "20min" is selected for the enable time among the Easy IP Setup accommodate period. (page 70 in the <Operations and Settings>)
● The Easy IP Setup Software cannot be used from a different subnet via a router.
● The unit cannot be displayed or its settings established using an older version of the Easy IP Setup Software (Ver.2.xx).

Network settings

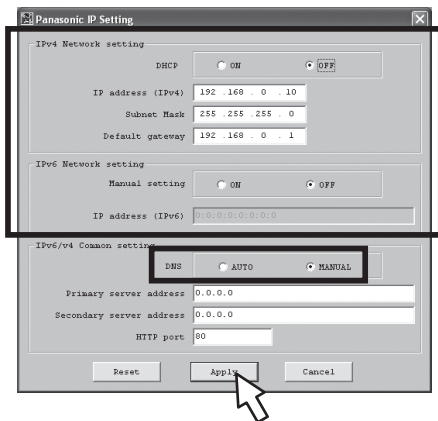**1** **Start the Easy IP Setup Software.**

2 **Click the MAC address/IP address of the camera to be set, and click the [IP setting] button.**
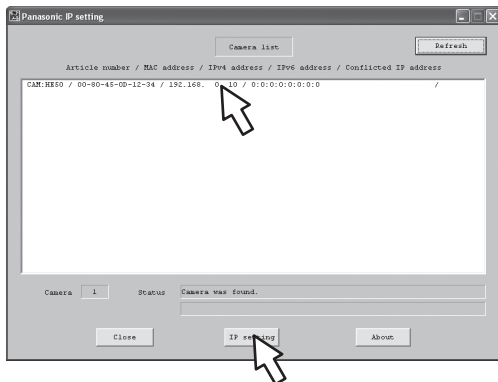
Notes

- When a DHCP server is being used, the IP address allocated to the unit can be checked by clicking the [Refresh] button of the Easy IP Setup Software.
- If IP addresses are in contention, the MAC address of the camera concerned is the one shown with the shading.

3 **Input the network items, and click the [Apply] button.**

Note

- When a DHCP server is being used, "DNS" of the Easy IP Setup Software can be set to "AUTO".

✏ **Memo** ✏

- After the [Apply] button is clicked, it takes about 2 minutes for the settings in the unit to be completed. If the AC adapter or LAN cable is disconnected before the settings are completed, the settings will be canceled. In this case, repeat the steps to establish the settings.
- When a firewall (including software) has been introduced, enable access to all the UDP ports.

Troubleshooting

●Operation

Symptom	Cause and remedial action	Reference pages
No power	● **Is the AC adapter securely connected to the AC outlet?**	——
	● **If the power plug of the AC adapter connected properly?**	——
	● **If the unit is connected to the controller, has it been connected properly?** → Refer to the Operating Instructions of the controller.	P.31 to 33
	● **When the unit is being operated by the wireless remote control** → Also refer to the "Cannot operate using the wireless remote control" item.	——
Cannot operate (common to wireless remote control, controller)	● **Is the power on?** → If the unit's status display lamp is off or if it has lighted up orange, it means that the unit's power is not being supplied.	\<Operations and Settings\> P.7
	● **The safe mode function may have been activated.**	\<Operations and Settings\> P.83
	● **Have the limiter functions been set?**	\<Operations and Settings\> P.81 to 82
	● **Has the correct unit to be operated been selected?**	\<Operations and Settings\> P.9
Cannot operate using the wireless remote control	● **Have the remote control's batteries run down or have the batteries been installed with their polarities reversed?** → If the status display lamp does not blink even when the wireless remote control is operated near the wireless remote control signal light-sensing area, it means that the batteries have run down. Replace the batteries.	——
	● **Is there a fluorescent light or plasma monitor near the unit and, if so, is the wireless remote control signal light-sensing area exposed to its light?**	P.14
Cannot operate using the controller	● **Is the unit connected to the controller properly?** → Refer to the Operating Instructions of the controller.	P.31 to 33
	● **It may be necessary to upgrade the version of the controller so that the controller will support the unit.** → Consult with your dealer.	——
The unit turns in the opposite direction to the one operated	● **Has the stand-alone (Desktop) installation setting been selected correctly?**	\<Operations and Settings\> P.46, P.65
	● **The reversal setting may have been established at the controller if the unit is connected to the controller.** → Refer to the Operating Instructions of the controller.	——

Troubleshooting

Symptom	Cause and remedial action	Reference pages
The adjustment of the slowest speed at which the camera is to start panning and tilting fails to be completed for the AW-RP655 or AW-RP555	**Do not attempt to adjust the slowest speed at which the camera is to start panning and tilting since this adjustment does not need to be undertaken when the unit is connected with the AW-HE50.** **If an attempt is made to undertake this adjustment, the following will occur:** ● **When the AW-RP655 is used:** **The LCD will keep showing that adjustment is still underway for the right side of the slowest start speed for panning and tilting, and it will not be possible to transfer to the next adjustments (top → left → bottom).** → Press the [MENU] button to cancel the adjustment of the slowest speed at which the camera is to start panning and tilting. ● **When the AW-RP555 is used** **The lamps of the [MEMORY] button and [MODE] button will not stop blinking.** → Operate the joystick, and cancel the adjustment of the slowest speed at which the camera is to start panning and tilting.	⎯⎯
The web setting screen cannot be accessed	● **Has a LAN cable of category 5 or above been connected to the LAN connector for IP control?**	P.31 to 33
	● **Is the [LINK] LED of the LAN connector for IP control lighted?** → If it is not lighted, it means that something is wrong with the connection to the LAN or that the network at the connection destination is not working properly. Check the LAN cable for defective contacts, and check the wiring.	P.31 to 33
	● **Is the power on?** → If the unit's status display lamp is off or if it has lighted up orange, it means that the unit's power is not being supplied.	\<Operations and Settings> P.7
	● **Has a valid IP address been set in the unit?**	\<Operations and Settings> P.69 to 70

	● **Has the wrong IP address been accessed?**
	 → Check the connections by following the steps below.
	 Using the Windows command prompt:
	 > ping [IP address which has been set in the camera]
	 A reply returned from the unit signifies that there are no problems in operation.
	  If a reply is not received, try following operation:
	  • Reboot the unit, and within 20 minutes change the IP address using the Easy IP Setup Software.
		⎯⎯

	● **Has 554 been set as the HTTP port number?** → Use any port number, except for the numbers below which are used by the unit, for the HTTP port number. 20, 21, 23, 25, 42, 53, 67, 68, 69, 110, 123, 161, 162, 554, 995, 10669, 10670, 59000 to 59999, 60000 to 61000	\<Operations and Settings> P.70

Troubleshooting

Symptom	Cause and remedial action	Reference pages

The web setting screen cannot be accessed	● **Has the same IP address setting been used for another device? Is there a lack of consistency between the address set and the network subnet at the installation destination?**
	→ [When the personal computer is connected to the unit within the same subnet]
	    Have the IP addresses of the unit and personal computer been set to the subnet shared by the unit and computer? Has the "Use proxy server" setting been selected by the web browser? When accessing the unit within the same subnet, it is recommended that the unit's address be set to the "Remove from proxy" address.
	
	[When the unit and personal computer are connected to different subnets]
	    Has the wrong setting been selected as the default gateway setting for the unit?
		––
		
		<Operations and Settings>
		P.70

The settings on the web setting screen are not updated or displayed properly	● **Press the [F5] key on the keyboard of the personal computer to request that the settings be acquired.**	––
	● **Follow the steps below to delete the temporary Internet files.** ① In Internet Explorer, select [Tools] → [Internet Options]. ② Click the [Delete] button for "Temporary Internet files".	––

	● **If, in the Temporary Internet Files settings, the check "Every time I visit the webpage" setting is not selected for "Check for newer versions of stored pages", the web setting screen may not be displayed properly.**
	→ Follow the steps below.
	    ① In Internet Explorer, select [Tools] → [Internet Options].
	    ② When Internet Explorer 7.0 is being used:
	      Click the [Settings] button in "Browsing history", and select "Every time I visit the webpage" under "Check for newer versions of stored pages".
	
	      When Internet Explorer 6.0 is being used:
	      Click the [Settings] button in "Temporary Internet files", and select "Every visit to the page" under "Check for newer versions of stored pages".
		––

	● **The unit's ports may be filtered by the firewall or other function of the anti-virus software.** → Change the HTTP port number of the unit to a port number which will not be filtered.	––
It is not possible to download the setting files	● **Has the file download function been disabled?** → On the "Security" settings screen (Internet Options → Security) of Internet Explorer, click the "Custom Level" button under "Security level for this zone" to enable "File download" and "Automatic prompting for file downloads".	––

Troubleshooting

●Video

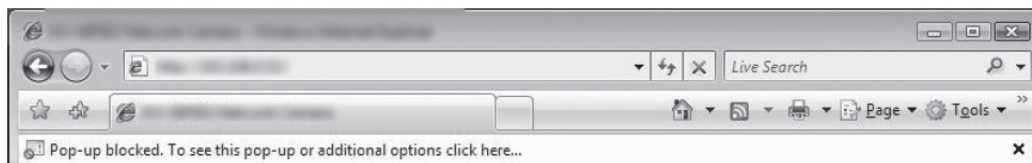| Symptom	Cause and remedial action	Reference pages
No pictures are displayed or the pictures are disturbed	● **Has the unit been connected properly to the other connected devices?**	P.30 to 33
	● **If the system is configured in such a way that the picture is also switched when the unit to be operated is selected, has the correct unit been selected?**	\<Operations and Settings\> P.9
	● **Has the video signal setting been selected correctly?**	\<Operations and Settings\> P.43, P.64
The picture is flipped vertically	● **Has the stand-alone (Desktop) installation setting been selected correctly?**	\<Operations and Settings\> P.46, P.65
Multiple color bands (color bars) are displayed	● **Switch to the camera picture.**	\<Operations and Settings\> P.13
The menu screen is displayed	● **Exit the menu.**	\<Operations and Settings\> P.30 to 37
It is difficult to view the menu screens	● **Depending on the HDMI monitor you are using, you may experience one or more of the symptoms described below. These symptoms are especially noticeable when any of the SD formats is used: This is normal and not indicative of any trouble.** • The resolution of the characters in the menu displays changes as the background image changes. • Depending on the edge enhancement setting established for the monitor, white lines appear in front of the black shadows of the menus. • Depending on the edge enhancement setting established for the monitor, the background colors may be superimposed onto the white parts of the menus.	───
No auto focusing	● **Is the focus set to manual?** → Auto focusing is initiated as soon as the focus is set to auto.	\<Operations and Settings\> P.13
	● **In some situations, it may be hard to focus at the auto setting.** → In cases like this, select the manual setting, and focus manually.	\<Operations and Settings\> P.15
The subject is not brought into focus during zooming when the manual setting is used for the focus	● **Was the focus adjusted at the Tele end?** → First adjust the focus at the Tele end where the focusing accuracy is higher, and then proceed with the zooming.	───
	● **Under some operating conditions, it may be hard to bring subjects into focus.** → In such cases, use the focus at the auto setting.	\<Operations and Settings\> P.13

Troubleshooting

Symptom	Cause and remedial action	Reference pages
Ring-shaped reflections appear in the four corners of the images	● **These are caused by the reflections of the light between the lens and the cover in front of the lens. Find a way of optimizing the position of the lighting relative to the position of the unit, and install and use the unit in a location where the reflections will not occur.**	——
Something is wrong with the coloring of the pictures	● **Activate the ATW (Auto tracking white adjustment) function.**	\<Operations and Settings\> P.24
	● **In some situations, the proper colors may not be reproduced using the ATW function.** → In cases like this, proceed with the white balance adjustment.	\<Operations and Settings\> P.22 to 24
The pictures are too light or too dark	● **Either select the auto setting for the iris or select the manual setting and adjust the iris manually.**	\<Operations and Settings\> P.16
	● **The pictures may be dark if the video signal cables are too long because this will cause signal attenuation.**	——
The subjects appear distorted	● **If a subject has suddenly crossed in front of the camera, it may appear slightly distorted because this camera uses a MOS image sensor.** **This is normal and not indicative of any problem.**	——
When the flash is fired during shooting, only the top or bottom of the screen becomes lighter	● **With a MOS image sensor, the shooting timing differs slightly between the top left and bottom right of the screen. This means that when the flash is fired, the bottom of the screen will become lighter in the field concerned and the top will become lighter in the next field.** **This is normal and not indicative of any problem.**	——
The brightness changes cyclically or the colors change, and horizontal stripes can be seen passing across the screen	● **These phenomena (flicker) may occur under the illumination produced by fluorescent lighting, mercury bulbs or other types of discharge tubes.** **This is normal and not indicative of any problem.** **At a time like this, it is recommended that the electronic shutter speed be set to 1/100 in areas with a 50 Hz power line frequency or to OFF in areas with a 60 Hz power line frequency.**	——
When fine lines or cyclical patterns are shot, flickering is seen or coloring is added to them	● **This phenomenon occurs because the pixels are arranged systematically on each image sensor. It is noticeable when the spatial frequency of a subject and the pixel pitch are brought into proximity so change the camera angle or take other such action.**	——

Troubleshooting

●Web settings

Depending on the OS installed on the PC, the following may occur. Follow the instructions below when the following has occurred. By performing the following solutions, other applications and the security level may not be affected.
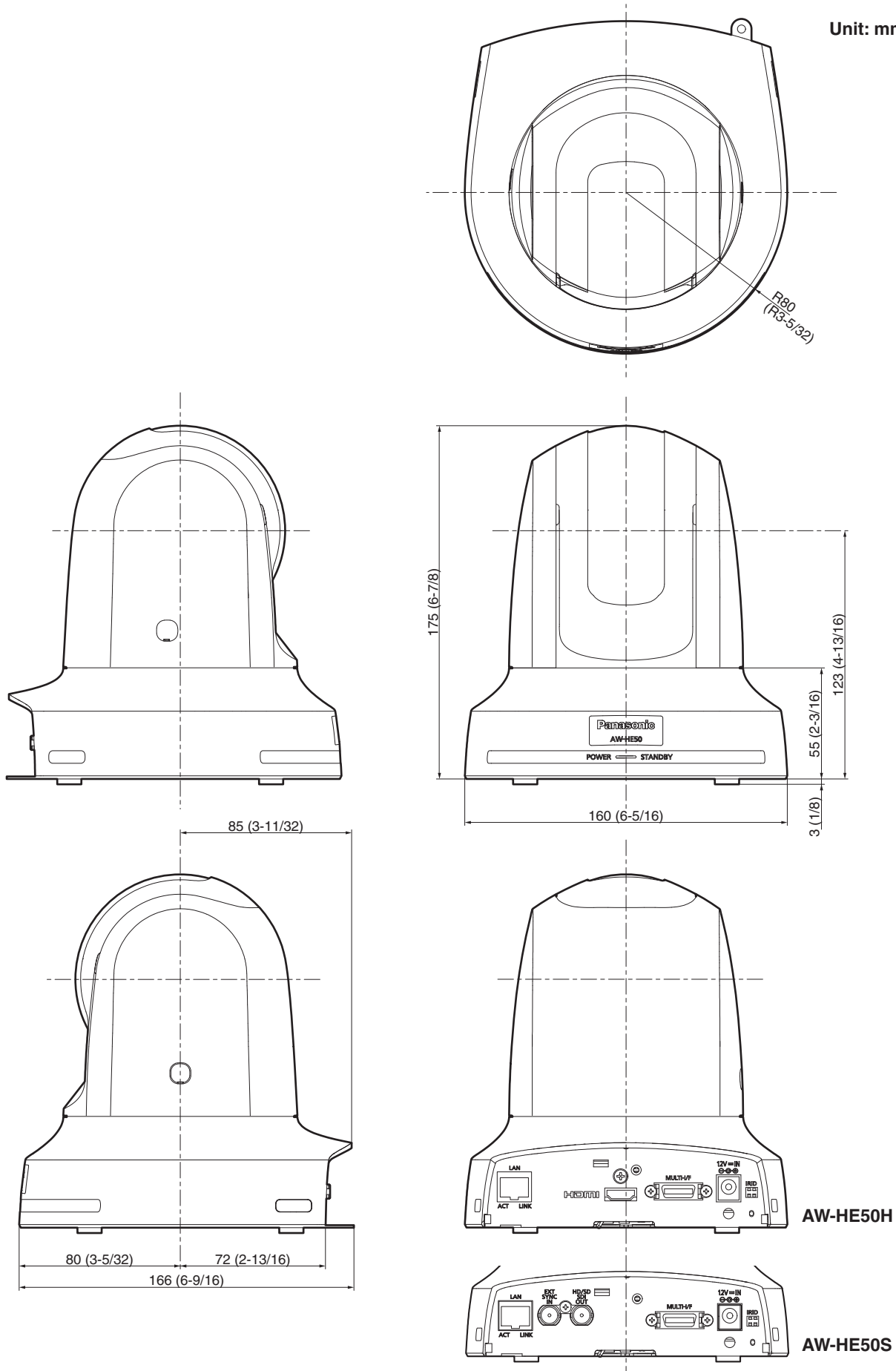The "Information bar" expressed in the following symptom and solutions will be displayed just below the address bar only when there is information to communicate.

Symptom	Cause and remedial action	Reference pages
The following message is displayed on the information bar. "Pop-up blocked. To see this pop-up or additional options click here."	● **Click the information bar and select "Always Allow Pop-ups from This Site". The dialog window saying "Allow pop-ups from this site?" will be displayed. Click the [Yes] button.**	―
An unnecessary status bar or scroll bar is displayed on the pop-up window	● **Click "Internet Options" under "Tools" of the menu bar of Internet Explorer®, and then click the [Security] tab. Click "Internet" in the "Select a Web content zone to specify its security settings:" section. Then, click the [Custom Level...] button to open the "Security Setting" window. Under "Miscellaneous", select "Enable" for "Allow script-initiated windows without size or position constraints". Click the [OK] button. When the warning window is displayed, click the [Yes] button.**	―

Appearance

Unit: mm (inch)

R80
(R3-5/32)

175 (6-7/8)

123 (4-13/16)

55 (2-3/16)

3 (1/8)

Panasonic
AW-HE50

POWER ⟷ STANDBY

160 (6-5/16)

85 (3-11/32)

80 (3-5/32)

72 (2-13/16)

166 (6-9/16)

LAN
ACT LINK

HƉMI

MULTI-I/F

12V⎓IN

IRID

AW-HE50H

LAN
ACT LINK

EXT
SYNC
IN

HD/SD
SDI
OUT

MULTI-I/F

12V⎓IN

IRID

AW-HE50S

Specifications

Power requirements:	DC 12 V ±10 %
	(AC adapter provided)
Power consumption:	DC 12 V, 1.2 A (AW-HE50H)
	DC 12 V, 1.3 A (AW-HE50S)

▭ indicates safety information.

■ GENERAL

Ambient operating temperature:
　　　　　　　　0 °C to +40 °C (32 °F to +104 °F)

Storage temperature: –20 °C to +50 °C (–4 °F to +122 °F)

Allowable humidity ranges:
　　　　　　　　20 % to 90 % (no condensation)

Mass: 　　　　　Approx. 1.4 kg (3.09 lbs.)

Dimensions (W × D × H):
　　　　　　　　160 × 166 × 178 mm
　　　　　　　　(6-5/16″ × 6-9/16″ × 7″)
　　　　　　　　[excluding protrusions, cable cover,
　　　　　　　　direct ceiling mount bracket]

Finish: 　　　　Light silver matte finish

Controller supported: AW-RP655, AW-RP555, AW-RP50
　　　　　　　　● It may be necessary to upgrade
　　　　　　　　the version of the controller so
　　　　　　　　that the controller will support the
　　　　　　　　unit.

■ INPUT

Input connector: 　DC 12 V IN,
　　　　　　　　EXT SYNC IN (BNC)
　　　　　　　　(AW-HE50S only)
　　　　　　　　● BBS (Black Burst Sync) signal
　　　　　　　　supported

■ OUTPUT

Video output:

[AW-HE50H]	HDMI: HDMI connector
[AW-HE50S]	SDI: Compliant with the SMPTE292M/ SMPTE259M standards/75 Ω (BNC × 1)
[Specifications common to both models]	Composite: 1.0 V [p-p]/75 Ω (MULTI-I/F × 1)
	Y/Pr/Pb [HD] Y: 1.0 V [p-p]/75 Ω, Pr · Pb: 0.7 V [p-p]/ 75 Ω (MULTI-I/F × 1)
	[SD] Y: 1.0 V [p-p]/75 Ω, Pr · Pb: 0.7 V [p-p]/ 75 Ω (MULTI-I/F × 1)

● For Y/Pr/Pb, the 1080, 720 or SD format is selected depending on the format setting.

■ INPUT/OUTPUT

Input/Output connector: LAN connector for IP control
　　　　　　　　(RJ-45)
　　　　　　　　CONTROL IN RS422A
　　　　　　　　(MULTI-I/F)

Specifications

■ FUNCTIONS AND PERFORMANCE

[Camera unit]

Imaging sensors: 1/3″ Full-HD MOS

Lens: Motorized 18× zoom, f/1.6 to 2.8
(f=4.7 to 84.6 mm; 35 mm
equivalent: 36.9 mm to 664.5 mm)

Focus: Switching between auto and manual

Focus distance: Entire zooming range:
        1.5 m (4.9 ft.)
Wide end: 30 cm (0.98 ft.)

Color separation optical system:
On-chip color filter system

Minimum illumination: 3 lx (50 IRE, F1.6, +36 dB)

Horizontal resolution: 850 TV lines Typ (Center area)

Gain selection: Auto, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB,
15 dB, 18 dB

Storage mode: 0 dB, 6 dB, 12 dB, 18 dB

Electronic shutter speed:
1/100, 1/250, 1/500, 1/1000,
1/2000, 1/4000, 1/10000
Synchro scan: 60.24 Hz to
646.21 Hz

Gamma: Off, Normal (Low, Mid, High),
Cinema

White balance: AWB A, AWB B, ATW

Chroma amount variability:
7 levels variability

Scene file: FullAuto, Manual1, Manual2,
Manual3

Color bars: FULL BAR

Output format: HD   1080: 59.94i,
       720: 59.94p
SD   480: 59.94i

Synchronization system:
[AW-HE50H]
  Internal synchronization

[AW-HE50S]
  Internal/External synchronization
  (BBS)

[Pan-tilt head unit]

Installation method: Stand-alone (Desktop) or
suspended (Hanging)
● To ensure safety, the unit must be
secured using the mount bracket
provided.

Camera/pan-tilt head control:

IP connecting cable	When connecting through a hub:
	   LAN cable* (category 5 or above,
	   straight cable), max. 100 m (328 ft.)
	When a hub is not used:
	   LAN cable* (category 5 or above,
	   crossover cable) max. 100 m (328 ft.)

RP connecting cable	LAN cable* (category 5 or above, straight cable), max. 1000 m (3280 ft.) (Control only: Use of an external device or some other means must be provided separately in order to extend the video signal connections.)
Protocol	RS-422A, AW series protocol

     ***: Use of an STP (shielded twisted pair) cable is
recommended.**

Pan/tilt operation speed:
Max. 90°/sec. or more

Panning range: ±175°

Tilting range: +90° to −30°
● Depending on the pan or tilt
position, the camera may be
reflected in the image.

Quietness: NC35 (normal speed),
NC40 (when preset)

■ AC adapter

Input: AC 100 V to 240 V, 1.5 A, 50/60 Hz
Output: DC 12 V, 2.5 A, 30 W

> **The provided power cable is for 125 V AC or less.
> Use it within AC 100 V to 120 V.**

■ Optional accessories

- **Wireless remote control AW-RM50G
(Size "AA" dry battery × 2, obtained separately)**
- **Direct ceiling mount bracket WV-Q105**
- **Multi-interface cable AW-CA20T6G**

Mass and dimensions shown are approximate.
Specifications are subject to change without notice.

Memo

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Operating Instructions
<Operations and Settings>

HD Integrated Camera

Model No. **AW-HE50HN**
AW-HE50SN

3TR006484AAA

Contents

Before use

■ Overview

● This unit is a compact full HD camera integrated with a pan-tilt head and featuring a newly developed 1/3-inch full HD MOS sensor and digital signal processor (DSP).

● In addition to its optical 18× zoom lens, the unit comes with a 10× digital zoom to achieve high-quality shooting that overflows with ambiance.

● Two models are available: the HDMI model AW-HE50H which is ideal for distributing the signals of TV conference and other video events, and the SDI output model AW-HE50S which is ideal for creating content. Besides IP control, both models allow connection with existing camera controllers by way of serial control.

■ Concerning the Operating Instructions

● For the purposes of this manual, the model number AW-HE50HN is referred to as the "AW-HE50H", the AW-HE50SN as the "AW-HE50S" and model numbers AW-HE50HN and AW-HE50SN will be referred to together as the "AW-HE50". Similarly, the model number AW-RP655N is referred as the "AW-RP655", the AW-RP555N as the "AW-RP555" and the AW-RP50N as the "AW-RP50".

How the model's Operating Instructions manuals are configured

● The manual of this HD integrated camera (hereafter, "the unit") is divided into two manuals: one is the <Operations and Settings> (this manual in the CD-ROM), and the other is the <Basics>. Before installing the unit, be sure to read the <Basics> to ensure that the unit is installed correctly.

Before use

■ Required personal computer environment

CPU	Intel® Core™2 DUO 2.4 GHz or faster recommended
Memory	512 MB or more (1 GB or more when using Microsoft® Windows Vista®)
Network function	10Base-T or 100Base-TX port ×1
Image display function	Resolution: 1024 × 768 pixels or more Color generation: True Color 24 bits or more
Supported operating system and Web browser	Microsoft® Windows® 7 Professional 64-bit*1 Microsoft® Windows® 7 Professional 32-bit*1 Windows® Internet Explorer® 8.0*2
	Microsoft® Windows Vista® Business SP1 32-bit Windows® Internet Explorer® 7.0
	Microsoft® Windows® XP Home Edition SP3*3 Microsoft® Windows® XP Professional Edition SP3*3 Microsoft® Internet Explorer® 6.0 SP3
	*1: This cannot be used in the Windows® XP compatibility mode. *2: This cannot be used with the 64-bit version of Internet Explorer® 8.0. *3: The Microsoft® Windows® XP Professional x64 Edition is not supported.
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for browsing the Operating Instructions on the CD-ROM)

IMPORTANT
● **Failure to provide the required personal computer environment may slow down the delineation of the images on the screen, make it impossible for the web browser to work and cause other kinds of problems.**

✐ **Memo** ✐

● When using Microsoft® Windows Vista® or Microsoft® Windows® 7, refer to the "Notes on Windows Vista®/ Windows® 7" (page 84) for details on the personal computer environment that is required and on the precautions and other items.

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● Microsoft, Windows, Windows Vista and Internet Explorer are the registered trademarks or trademarks of Microsoft Corporation of the United States in the United States and other countries.

● Intel, Pentium and Intel Core are the trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

● Adobe and Reader are the registered trademarks or trademarks of Adobe Systems Incorporated in the United States and other countries.

● Other names of companies or products appearing in the text are the registered trademarks or trademarks of the companies concerned.

■ Copyrights

It is forbidden to transfer, copy, reverse assemble, reverse compile or reverse engineer the software included in this unit or to engage in any act of exportation which contravenes the applicable export laws and regulations.

Before use

■ Disclaimer

Panasonic Corporation will accept absolutely no responsibility whatsoever when any of the following is applicable:

① Any accidental, special or consequential damages or harm caused either directly or indirectly in connection with the unit

② Any problems with or damage to the unit, etc. resulting from misuse, abuse or carelessness on the part of the user

③ When the user has disassembled, repaired or remodeled the unit

④ Any inconvenience, losses, damages or harm that result from the disability to display images as a result of some reason or cause including problems with or malfunctioning of the unit

⑤ Any problem caused by any system in which the unit is used in combination with the equipment of third parties or any inconvenience, damages or harm occurring as a result of such

⑥ Any losses of any registered information whatever may be the cause of those losses

■ Network-related precautions

This unit is connected to a network and used: As such, it may be susceptible to the following damage, harm or losses.

① Leakage or release of information via the unit

② Illegal operation of the unit by third parties with malicious intent

③ Interference with or shutdown of the unit by third parties with malicious intent

To prevent these kinds of damage, harm or losses, users are urged to take the following measures to ensure network security including, but not limited to, the following:

● The unit must be secured on the network by use of firewalls or other measures.
● When the unit is to be used in a system to which personal computers are connected, notification of virus protection and safe guards against illegal programs are to be implemented and periodically checked.
● Setting of user names and passwords, and restriction of the log-in users in order to provide protection from illicit attacks.
● Restriction of access through user authentication and the taking of other actions to ensure that authorized information (user names and passwords), FTP server information, DDNS server information, etc. cannot be leaked over the network.
● Unit should be installed in a manner in which its cables and other accessories cannot be easily damaged.

Basic shooting operations

1 **Set the subject brightness to the appropriate level.**

2 **Turn on the power of all the units and devices in the system.**

3 **Select the unit to be operated.**

Even when using only one unit, it must still be selected from the wireless remote control or controller.

4 **Select the shooting mode.**

Select one of the four (FullAuto, Manual1, Manual2 and Manual3) preset shooting modes (scene files), each of which corresponds to a set of circumstances in which the subject will be shot.
Select the mode that satisfies the shooting conditions and suits your preferences.
When continuing to shoot in the same circumstances, there is no need to select another mode.

5 **Start shooting.**
(After shooting, turn off the power of all the units and devices in the system.)

> **Note**
>
> ● If "FullAuto" has been selected as the setting for Scene on the camera menu, for example, all the auto settings will be turned on, and manual operations will no longer be possible for some of the items.

With the basic operations, it is assumed that the focus, iris and white balance will be adjusted automatically (as per the factory settings).

If the settings have already been changed and the original settings are to be restored, refer to the "What to do when encountering problems in the basic shooting operations" (page 13) and "Camera screen" (page 39) in "Setting the menu items".

How to turn the power on and off

■ Turning the power on

**When performing the operations
using the wireless remote control**

1 **Set all the power switches of the units and devices connected in the system to ON.**

- This unit does not have a power switch.
  When power is supplied to it, the status display lamp will light up orange.
  The initial operation is then performed, and after this the unit is set to the standby mode.

2 **Press one of the [CAM1] to [CAM4] buttons on the wireless remote control to select the unit.**

3 **Press the [ON/STANDBY] button on the wireless remote control for 2 seconds.**

The POWER ON mode is established, images are output, and control can be exercised.
- The unit's status display lamp now lights up green.

> **Note**
>
> - It takes about 30 seconds per unit for the initial settings operation to be completed. During this period, the unit cannot be operated.
>   (Status display lamp: light up orange)

4 **If a multiple number of units are going to be used, repeat steps 2 and 3 as required.**

The unit's status display lamp blinks green when a signal matched by the remote control ID has been received, and it blinks orange when a signal that is not matched by the remote control ID has been received.

When performing the operations using the controller

When the AW-RP655 or AW-RP555 is connected:

1 **Set all the power switches of the units and devices connected in the system to ON.**

- This unit does not have a power switch.
  When power is supplied to it, the status display lamp will light up orange.
  The initial operation is then performed, and after this the unit is set to the standby mode.

2 **Set the [OPERATE] switch on the controller to ON.**

The POWER ON mode is established, images are output, and control can be exercised.
- The unit's status display lamp now lights up green.

> **Note**
>
> - It takes about 30 seconds per unit for the initial settings operation to be completed. During this period, the unit cannot be operated.
>   (Status display lamp: light up orange)

Before setting the [OPERATE] switch on the controller to ON, be absolutely sure to set all the power switches of the units and devices connected in the system to ON.

For further details, refer to the Operating Instructions of the controller.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

How to turn the power on and off

■ Turning the power off

When performing the operations using the wireless remote control

1 **Press one of the [CAM1] to [CAM4] buttons on the wireless remote control to select the unit.**

2 **Press the [ON/STANDBY] button on the wireless remote control for 2 seconds.**

The unit's power is turned off.
● The unit's status display lamp now lights up orange.

3 **If a multiple number of units are going to be used, repeat steps 1 and 2 as required.**

4 **Set all the power switches of the units and devices connected in the system to OFF.**

When performing the operations using the controller

■ When the AW-RP655 or AW-RP555 is connected:

1 **Set the [OPERATE] switch on the controller to OFF.**

The power of all the cameras (including the unit) connected to the controller is turned off.
● The unit's status display lamp now lights up orange.

2 **Set all the power switches of the units and devices connected in the system to OFF.**

For further details, refer to the Operating Instructions of the controller.

■ When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Selecting the units

Up to four units can be operated using one wireless remote control.
Up to five units and devices can be operated using one controller.
Select the unit (or units) to be operated from the wireless remote control or controller.
Even when using only one unit, it must still be selected.

**When performing the operations
using the wireless remote control**

1 **Press the [CAM1], [CAM2], [CAM3] or [CAM4]
button.**

The unit's status display lamp blinks green when a signal matched by the remote control ID has been received, and it blinks orange when a signal that is not matched by the remote control ID has been received.

When performing the operations using the controller

■ **When the AW-RP655 is connected:**

1 **Press the [1], [2], [3], [4] or [5] button of
[CONTROL/PREVIEW MONITOR OUT SEL].**

■ **When the AW-RP555 is connected:**

1 **Press the [1], [2], [3], [4] or [5] button of
[CONTROL].**

■ **When the AW-RP50 is connected:**

Refer to the Operating Instructions of the controller.

Selecting the shooting modes (scene files)

■ Types of shooting modes

This unit has four preset shooting modes, each of which corresponds to a set of circumstances in which the subject will be shot.
Select the mode that satisfies the shooting conditions and suits your preferences.
The settings can be changed by menu operations.

● The results of the white balance and other adjustments are stored in the memory separately by shooting mode. Be absolutely sure to select the shooting mode before making any adjustments.

Note

● If "FullAuto" has been selected as the setting for Scene on the camera menu, for example, all the auto settings will be turned on, and manual operations will no longer be possible for some of the items.

FullAuto
The shutter speed and lens iris setting are adjusted automatically.

Manual1
The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.

Manual2
The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.
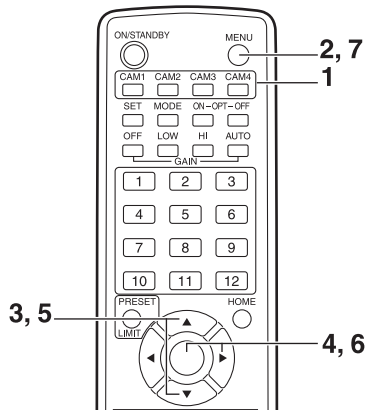
Manual3
The settings of your preferences can be established in line with the shooting scene, lighting and other conditions.

Selecting the shooting modes (scene files)

■ How to select the shooting mode

When performing the operations
using the wireless remote control

1 Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit.

2 Press the [MENU] button for 2 seconds.

The Top Menu is displayed.

```
＊ Top Menu ＊

⇨Camera      Scene: FullAuto
 System
 Maintenance
```
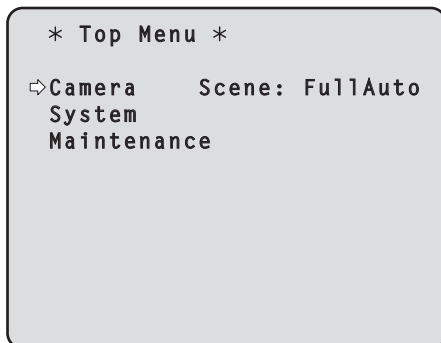
3 Press the [▲] or [▼] button to bring the cursor to "Camera".

4 Press the [○] button.

The "Camera" sub-menu is displayed on the monitor.

```
＊＊ Camera ＊＊

⇨Scene              FullAuto
  Contrast Level          0




 Return
```
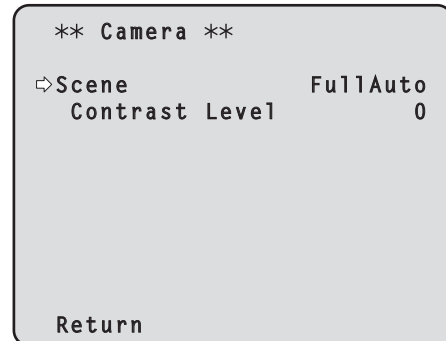
5 Press the [▲] or [▼] button to bring the cursor to "Scene".

6 Press the [○] button.

The shooting mode blinks.

7 Press the [▲] or [▼] button to select the shooting mode (FullAuto, Manual1, Manual2 or Manual3) to be used, and press the [○] button to enter the selection.

8 Press the [MENU] button for 2 seconds.

The menu display is exited.

Selecting the shooting modes (scene files)

When performing the operations using the controller

When the AW-RP655 is connected:

1 **Press the [1], [2], [3], [4] or [5] button of [CONTROL/PREVIEW MONITOR OUT SEL].**

2 **Press the [MENU] button.**

The display on the LCD panel of the AW-RP655 switches to the menu mode.

3 **Turn the jog dial (main).**

Display "CAMERA SETTING" on the LCD panel.

4 **Press the [OK] button.**
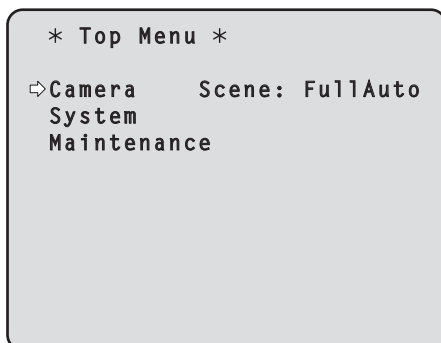
Display "OPEN CAMERA MENU? → OK Key" on the LCD panel.

5 **Press the [OK] button again.**

The Top Menu is displayed on the monitor.

```
  * Top Menu *

⇨Camera     Scene: FullAuto
 System
 Maintenance
```

6 **Turn the jog dial (main) to bring the cursor to "Camera".**

7 **Press the jog dial (main).**

The "Camera" sub-menu is displayed on the monitor.

```
 ** Camera **

⇨Scene          FullAuto
  Contrast Level        0




 Return
```
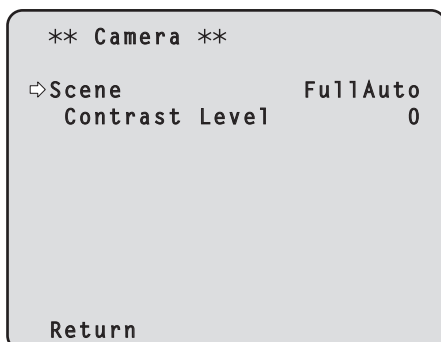
8 **Turn the jog dial (main) to bring the cursor to "Scene", and then press the jog dial (main) to start the shooting mode blinking.**

9 **Turn the jog dial (main) to select the shooting mode to be used, and press the jog dial (main) to enter the selection.**

10 **Press the [MENU] button or [R/B GAIN/PED] button.**

The menu display is exited.

When the AW-RP555 is connected:

1 **Press the [1], [2], [3], [4] or [5] button of [CONTROL] to select the unit.**

2 **Press the [1], [2], [3] or [USER] button of [SCENE FILE] to select the shooting mode.**

Shooting mode	[SCENE FILE] button
Manual1	[1]
Manual2	[2]
Manual3	[3]
FullAuto	[USER]

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Shooting

When performing the operations using the wireless remote control	**When performing the operations using the controller**

●Changing the camera's direction

Moving the camera toward the left or right (panning):
Press the [◀] or [▶] button.

Moving the camera up or down (tilting):
Press the [▲] or [▼] button.

Moving the camera diagonally:
Press the [▲] or [▼] button and [◀] or [▶] button at the same time.

Returning the camera to the reference position:
Press the [HOME] button for 2 seconds.

●Using the zoom function

Zooming in (the subject becomes magnified in size):
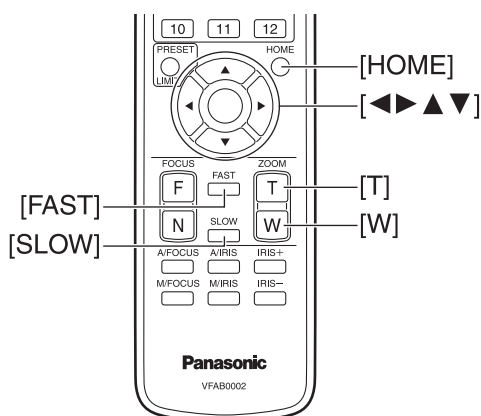Press the [T] button of [ZOOM].

Zooming out (the subject becomes reduced in size):
Press the [W] button of [ZOOM].

●Switching the direction or zoom speed

Changing the direction or zoom at high speed:
Press the [FAST] button.

Changing the direction or zoom at low speed:
Press the [SLOW] button.

The lens focus control speed is also changed at the same time.

●Changing the camera's direction

Moving the camera toward the left or right (panning):
Tilt the [PAN/TILT] lever toward L or R.

Moving the camera up or down (tilting):
Tilt the [PAN/TILT] lever toward UP or DOWN.

Moving the camera diagonally:
Tilt the [PAN/TILT] lever diagonally.

Returning the camera to the reference position:
If the controller has a [HOME] button, press the [HOME] button.

●Using the zoom function

Zooming in (the subject becomes magnified in size):
Tilt the [ZOOM] lever toward the TELE direction.

Zooming out (the subject becomes reduced in size):
Tilt the [ZOOM] lever toward the WIDE direction.

> **Note**
>
> ● The indicator displays of the AW-RP655 are indicators that show the positions of the optical zoom so they will not work for electronic zooming.

●Changing the direction or zoom speed

AW-RP655 and AW-RP555

1 **Press the [SPEED] button.**
Each time the [SPEED] button is pressed, the control speed is switched between the high speed (the button's lamp is off) and low speed (the button's lamp is lighted). The lens focus control speed is also changed at the same time.

AW-RP50

Refer to the Operating Instructions of the controller.

What to do when encountering problems in the basic shooting operations

If the trouble is not resolved by taking the action suggested below, refer to "Troubleshooting" (page 36 in the <Basics>).

When performing the operations using the wireless remote control

---

The unit does not move.
● Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit which is to be operated.
If only one unit is being used, it is normally selected using the [CAM1] button.
● If the unit's status display lamp is off or lights up orange, it means that the unit's power is not on.
Refer to "How to turn the power on and off" (page 7), and turn on the power.
● If the unit's status display lamp does not blink even when the wireless remote control is operated near the unit's wireless remote control signal light-sensing area, it means that the wireless remote control's batteries have run down.
Replace the batteries.

Multiple color bands (color bars) are displayed.
Press the [MODE] button to switch to the camera picture.

The menu screen is displayed.
Press the [MENU] button for 2 seconds to exit the menu.

The lens focus is not adjusted automatically.
Press the [A/FOCUS] button to switch to auto focusing.

The camera picture is too light or too dark.
1. Press the [A/IRIS] button to switch automatically to the lens iris adjustment.
2. Press the [AUTO] button of [GAIN] to switch automatically to the gain adjustment.

Something is wrong with the coloring of the camera pictures.
Refer to "Auto tracking white adjustment (ATW)" (page 24), and switch to "ATW".

The camera menus are not displayed
When color bar signals are output, the camera menus are not displayed with composite signals.
To operate the camera menus with composite signals, set the color bar display to OFF.

When performing the operations using the controller

The unit does not move.
● Select the unit to be operated by following the procedure below.

When the AW-RP655 is connected:
Press the [1], [2], [3], [4] or [5] button of [CONTROL/PREVIEW MONITOR OUT SEL].

When the AW-RP555 is connected:
Press the [1], [2], [3], [4] or [5] button of [CONTROL].

When the AW-RP50 is connected:
Refer to the Operating Instructions of the controller.

● If the [OPERATE] lamp on the controller is off, it means that the power of the controller is not on.
● If the unit's status display lamp is off or lights up orange, it means that the unit's power is not on.
Refer to "How to turn the power on and off" (page 7), and turn on the power.

Multiple color bands (color bars) are displayed.
Press the [MODE] button to switch to the camera picture.

The menu screen is displayed.
Press the [MENU] button to exit the menu.

The lens focus is not adjusted automatically.
Press the [EXT(AF)] button to switch to auto focusing.

The camera picture is too light or too dark.
1. Press the [IRIS] button several times to turn on its lamp, and switch the lens iris adjustment to auto.
2. Press the [GAIN] button several times to turn on its lamp, and switch the gain adjustment to auto.

Something is wrong with the coloring of the camera pictures.
Refer to "Auto tracking white adjustment (ATW)" (page 24), and switch to "ATW".

The camera menus are not displayed
When color bar signals are output, the camera menus are not displayed with composite signals.
To operate the camera menus with composite signals, set the color bar display to OFF.

More advanced operations

Manual shooting (see pages 15 to 18)

- Manual adjustment of focus
- Manual adjustment of iris
- Manual adjustment of shutter speed
- Manual adjustment of gain

Preset memories (see pages 19 to 21)

- Up to 100 settings for the camera direction (panning and tilting), zoom, focus, iris, gain up and white balance can be registered in the preset memories, and called.
- The number of settings that can be registered and called depends on the type of wireless remote control (12 settings) or controller that is used for operation.

White balance adjustment (see pages 22 to 24)

- This adjustment is performed to express the white accurately. Its setting also has an effect on the color tones of the entire screen.
- It must be performed when using the unit for the first time or when the unit has not been used for a prolonged period.
- It must be performed when the lighting conditions or brightness has changed.
- Once the white balance has been attained, no further adjustment is required provided that the unit is going to be used under the same conditions.

Black level (master pedestal) adjustment (see pages 25 to 26)

- This adjustment is performed to align the black level (pedestal level) of a multiple number of cameras.
- Ask your dealer to perform this adjustment.

Genlock adjustment (AW-HE50S only) (see pages 27 to 29)

- This adjustment is performed to achieve phase alignment by applying external synchronization (genlock) when a multiple number of cameras will be used or when the unit will be used in combination with other devices.
- Ask your dealer to perform this adjustment.

Manual shooting

■ Manually adjusting the focus

The lens focus can be adjusted manually.

**When performing the operations
using the wireless remote control**

1 **Press the [M/FOCUS] button to switch the focus to manual adjustment.**

2 **Press the [F] or [N] button of [FOCUS], and adjust the focus.**

When the [F] button is pressed, the focus moves further away (far); conversely, when the [N] button is pressed, it moves nearer (near).
The speed of focusing and other adjustments can be switched to fast or slow by pressing the [FAST] or [SLOW] button, respectively.

3 **If necessary, press the [A/FOCUS] button to return the focus to the automatic adjustment.**

When performing the operations using the controller

When the AW-RP655 is connected:

1 **Press the [EXT(AF)] button to switch the focus to manual adjustment.**

2 **Adjust the focus manually by turning the dial above the lighted [FOCUS] lamp whether it is the lamp of the [PAN/TILT] lever or [ZOOM] lever.**

Furthermore, every time the [SPEED] button is pressed, the speed of the focusing and other adjustments can be switched to fast or slow.

3 **If necessary, press the [EXT(AF)] button to return the focus to the automatic adjustment.**

When the AW-RP555 is connected:

1 **Press the [EXT(AF)] button to switch the focus to manual adjustment.**

2 **Adjust the focus manually by tilting the [FOCUS] lever.**

Furthermore, every time the [SPEED] button is pressed, the speed of the focusing and other adjustments can be switched to fast or slow.

3 **If necessary, press the [EXT(AF)] button to return the focus to the automatic adjustment.**

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Note

● When the focus is set to manual, the subject may go out of focus during panning, tilting or zooming. Therefore, the unit comes with a function which compensates for this. (Focus compensation during zooming function: Focus ADJ With PTZ.)
This function was set to ON at the factory.
If the function has been set to OFF, either adjust the focus, as required, after zooming or set the focus to auto. (See page 46 and page 65.)

Manual shooting

■ Manually adjusting the iris

The lens iris can be adjusted manually.

> **When performing the operations
> using the wireless remote control**

1 Press the [M/IRIS] button to switch the iris to manual adjustment.

2 Adjust the iris using the [IRIS +] or [IRIS –] button.

Press the [IRIS +] button to adjust the lens iris in the opening direction; conversely, press the [IRIS –] button to adjust the lens iris in the closing direction.

3 If necessary, press the [A/IRIS] button to return the iris to the automatic adjustment.

> **When performing the operations using the controller**

When the AW-RP655 is connected:

1 Press the [IRIS] button several times to turn off the button's lamp and switch to manual adjustment.

2 Adjust the iris manually by turning the dial above the lighted [IRIS] lamp whether it is the lamp of the [PAN/TILT] lever or [ZOOM] lever.

3 If necessary, press the [IRIS] button several times and turn on its lamp to return the iris to the automatic adjustment.

When the AW-RP555 is connected:

1 Press the [IRIS] button to turn off its lamp and switch to manual adjustment.

2 Turn the [LEVEL] dial of [IRIS] to adjust the iris manually.

The position of the [LEVEL] dial does not represent an absolute value. This is why the brightness may differ from one camera to another even when the dial is set to the same position.

3 If necessary, press the [IRIS] button to turn on its lamp and switch to automatic adjustment in order to return the iris to automatic adjustment.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Manual shooting

■ Manually adjusting the shutter speed

The shutter speed can be set using two methods. One is a method that specifies the time (where a time such as 1/250 sec. is designated), and the other is a method that specifies the frequency (where synchro scan, 60.24 Hz, etc. is designated).
When shooting a TV screen or PC monitor screen, the horizontal noise generated when the screen is shot can be minimized by adjusting the frequency to the screen frequency using synchro scan.

When performing the operations using the wireless remote control

Perform the adjustments on the Camera menu.
For further details, refer to the [Shutter Mode] and [Step/Synchro] items on page 40.

When performing the operations using the controller

The procedure is the same as for "When performing the operations using the wireless remote control" in "Basic operations" (pages 30 to 37).

■ When the AW-RP555 is connected:

1 **Press the [SHUTTER] button and turn its lamp on.**

The shutter speed set ahead of time is selected.

2 **If necessary, press the [SHUTTER] button and turn its lamp off in order to return the shutter to the OFF setting.**

● How to set the shutter speed using the AW-RP555

1 **With the [MEMORY] button still held down, press the [SHUTTER] button.**

The [PRESET] [1] to [5] and [6] to [10] buttons blink alternately.

2 **Press one of the [1] to [8] buttons or the [10] [PRESET] button — whichever button corresponds to the shutter speed which is to be set.**

Any of the shutter speeds in the table below can be set.

[1]	[2]	[3]	[4]	[5]
1/100	1/250	1/500	1/1000	1/2000
[6]	**[7]**	**[8]**		**[10]**
1/4000	1/10000	Synchro Scan		OFF

- Any change in the shutter speed is reflected the next time the [SHUTTER] button is pressed and its lamp is turned on.
- When OFF is selected, the shutter will not operate even when the [SHUTTER] button is pressed.
- Select the synchro scan setting on the menu.
- The shutter speed setting performed here is stored in the memory even when the power of the AW-RP555 is turned off.

For further details, refer to the Operating Instructions of the AW-RP555.

Manual shooting

■ Manually adjusting the gain

There are two ways to adjust the gain. One way involves using the buttons on the wireless remote control or controller; the other way involves using the Camera menu or Web setting.
The gain can be adjusted more precisely using the Camera menu or Web setting.
For further details, refer to the [Gain] item on page 40 and page 59.

> **Note**
>
> ● When adjusting the gain, the light quantity may change suddenly (causing the image output to be subjected to a shock).

**When performing the operations
using the wireless remote control**

1 Press the [OFF], [LOW] or [HI] button.

These buttons enable the gain increase to be selected in three steps.
[LOW] is used to select 9 dB; [HI] is used to select 18 dB.

2 If necessary, press the [AUTO] button in order to return the gain to the automatic adjustment (AGC).

When performing the operations using the controller

When the AW-RP655 is connected:

1 Press the [GAIN] button to turn off its lamp, and then switch to manual adjustment.

The preset gain increase amount is now selected.
For further details on the gain increase amount setting, refer to the Operating Instructions of the AW-RP655.

2 If necessary, press the [GAIN] button and turn on the button in order to return the gain to the automatic adjustment (AGC).

When the AW-RP555 is connected:

1 Press the [GAIN] button to turn off its lamp.

Each time this button is pressed, one of the three gain increase amounts can be selected in sequence.

The current status is displayed as follows.

	[MANU] [L] lamp	[MANU] [H] lamp	[GAIN] button
0 dB	Off	Off	Off
LOW	Lighted	Off	Off
HIGH	Off	Lighted	Off
AUTO	Off	Off	Lighted
Other	Lighted	Lighted	Off

2 If necessary, press the [GAIN] button several times and turn on its lamp in order to return the gain to the automatic adjustment (AGC).

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

In any case, the maximum gain of the automatic adjustment can be set by the menu.
For further details, refer to the [AGC Max Gain] item on page 40 and page 59.

18

Preset memories

This unit enables up to 100 settings for the camera direction (panning and tilting), zoom, focus, iris, gain and white balance to be registered in its preset memories, and called. However, the number of settings that can be registered and called depends on the type of wireless remote control or controller that is used for operation.

● The operating mode (manual or auto setting) is not registered for the focus and iris settings.
   The current focus and iris values are registered.
● The focus and iris values can be recalled only when the manual settings are applicable.
● AWB A, AWB B or ATW is registered as the white balance setting. The values selected when AWB was established are recalled as the adjustment values of AWB A or AWB B.
● The AWB Mode (ATW, AWB A or AWB B) stored using the AW-RP655 are recalled only when the AW-RP655 is connected.

Notes

● When there is a large difference in the environmental temperature between the time of registration and the time the setting is called, displacement of the preset position may occur.
● If displacement occurs, perform registration again.
● While preset settings are being called, it is not possible to perform manual operations such as panning, tilting, zooming or iris adjustments.
● If, when one set of preset settings has been called, another set of preset settings is then called, the first set of preset settings which have been called will take precedence.

When performing the operations using the wireless remote control

Twelve settings (preset No.1 to No.12) can be registered and called using the wireless remote control.
The [1] to [12] buttons correspond to the unit's preset memories No.1 to No.12.

● **Registering the settings in the preset memories**

1 Display the picture to be shot on the monitor.
   Operate the pan, tilt or zoom buttons to determine the camera angle.
   Adjust the focus, iris, gain and white balance if they need to be adjusted.

2 While holding down the [PRESET] button, press the button corresponding to the preset memory number.
   ● If a preset memory number with an already registered setting has been selected, the existing setting will be erased and replaced with the new one.

● **Calling the settings of the preset memories**

1 Press the button in which the preset memory setting has been registered.

Preset memories

When performing the operations using the controller

When the AW-RP655 is connected:

Up to 50 settings can be registered and called.
The [1] to [50] buttons of [TRACING/PRESET MEMORY] correspond to the unit's preset memories No.1 to No.50.

● **Registering the settings in the preset memories**

1 Set to the preset memory mode.
   Press the [TR/PSET] button to turn off its lamp.

2 Set to the memory recording mode.
   Press the [M.LOCK] button to turn off its lamp.

3 Display the picture to be shot on the monitor.
   Operate the [PAN/TILT] lever and [ZOOM] lever to determine the camera angle.
   Adjust the focus, iris, gain and white balance if they need to be adjusted.

4 Hold down the [MEMORY] button.
   The buttons among the [1] to [50] buttons of [TRACING/PRESET MEMORY] in which settings can be registered now start blinking in sequence.
   ● Preset memory settings cannot be registered in buttons whose lamps are off (since they contain tracing memory settings).

5 With the [MEMORY] button still held down, press the button of the preset memory number in which the setting is to be registered.

● **Calling the settings of the preset memories**

1 Set to the preset memory mode.
   Press the [TR/PSET] button to turn off its lamp.

2 Press the button among the [1] to [50] buttons of [TRACING/PRESET MEMORY] in which the desired setting was registered.

● **Erasing preset memory settings**

1 Set to the preset memory mode.
   Press the [TR/PSET] button to turn off its lamp.

2 Set the memory recording mode.
   Press the [M.LOCK] button to turn off its lamp.

3 Hold down the [RESET] button.
   The buttons among the [1] to [50] buttons of [TRACING/PRESET MEMORY] whose settings can be erased now start blinking in sequence.
   ● The settings for the buttons whose lamps are off cannot be erased (since they contain tracing memory settings).

4 With the [RESET] button still held down, press the button of the preset memory number whose setting is to be erased.

Preset memories

When the AW-RP555 is connected:

Up to 10 settings can be registered and called.
The [1] to [10] buttons of [PRESET] correspond to the unit's preset memories No.1 to No.10.

● **Registering the settings in the preset memories**

1 **Display the picture to be shot on the monitor.**
Operate the [PAN/TILT] lever and [ZOOM] lever to determine the camera angle.
Adjust the focus, iris, gain and white balance if they need to be adjusted.

2 **Hold down the [MEMORY] button.**
The buttons among the [1] to [10] buttons of [PRESET] in which settings can be registered now start blinking in sequence.

3 **With the [MEMORY] button still held down, press the button of the preset memory number in which the setting is to be registered.**

● **Calling the settings of the preset memories**

1 **Press the button among the [1] to [10] buttons of [PRESET] in which the desired setting was registered.**

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

White balance adjustment

■ White balance adjustment

In order for the white to be reproduced accurately, the ratio between the three primary colors (RGB) is adjusted. If the white balance has shifted out of adjustment, not only will the white be reproduced poorly but the color tones of the entire screen will also be degraded.

- **This adjustment must be performed when using the unit for the first time or when the unit has not been used for a prolonged period.**
- **It must be performed when the lighting conditions or brightness has changed.**

Either AWB (automatic white balance adjustment) which initiates automatic adjustment when the AWB button on the controller has been pressed or ATW (automatic tracking white balance adjustment) which constantly adjusts the white balance can be selected for adjustment purposes.

The results of the AWB adjustment can be stored in two memories, A and B, when "AWB A" or "AWB B" has been selected for the white balance.

- Once the white balance has been adjusted when the unit is used with the same settings and under the same conditions, its setting is completed simply by selecting a menu setting or pressing a button on the controller. There is no need to set it again.
- Once a new setting is entered, the previous setting will be erased.

Use the two memories to store settings corresponding to different shooting conditions.

● Automatic adjustment (AWB: AWB A or AWB B)

1 **Shoot a white subject (such as a white wall or handkerchief) so that it fills the screen.**

- Do not shoot shiny or very bright objects.

> **When performing the operations using the wireless remote control**

- Steps **2** through **8** represent the procedure for selecting the "AWB A" or "AWB B" memory. They need not be taken if a selection has already been made.
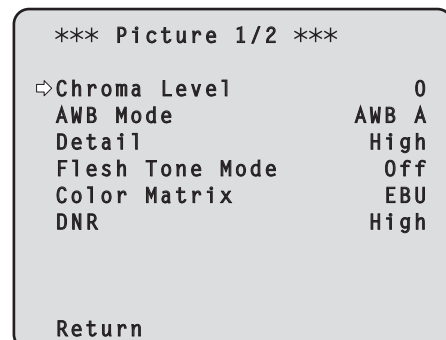
2 **Select Manual1, Manual2 or Manual3 as the shooting mode by following the procedure in "Selecting the shooting modes (scene files) (page 10).**

```
** Camera **

⇨Scene              Manual1
  Contrast
  Picture




  Return
```
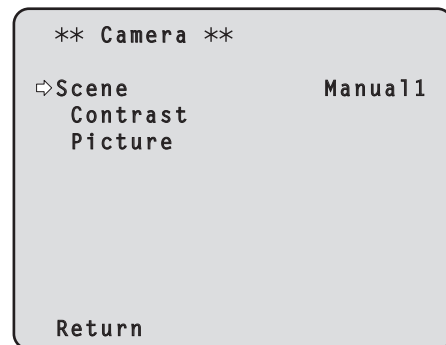
3 **Press the [▲] or [▼] button to bring the cursor to "Picture".**

4 **Press the [○] button.**

The "Picture 1/2" sub-menu is displayed.

```
*** Picture 1/2 ***

⇨Chroma Level          0
  AWB Mode          AWB A
  Detail             High
  Flesh Tone Mode     Off
  Color Matrix        EBU
  DNR                High



  Return
```

White balance adjustment

5 **Press the [▲] or [▼] button to bring the cursor to "AWB Mode".**

6 **Press the [○] button.**

"AWB Mode" starts blinking.

7 **Press the [▲] or [▼] button to change the AWB mode to be used to "AWB A" or "AWB B", and press the [○] button to enter the selection.**

8 **Press the [MENU] button for 2 seconds.**

The menu display is exited.

9 **Press the [SET] button for 2 seconds.**

The auto white balance adjustment (AWB) is performed, and the white balance setting is entered.
- The white balance cannot be adjusted when color bars are displayed. Press the [MODE] button to switch to the camera picture.
- When the white balance adjustment is completed successfully, "AWB OK" appears in the center of the screen.

```
AWB OK
```

- When the adjustment has failed, an error message such as "OUT RANGE NG", "HIGH LIGHT NG", "LOW LIGHT NG" or "ATW NG" is displayed.

When performing the operations using the controller

When the AW-RP655 or AW-RP555 is connected:

2 **Press the [A] button or [B] button of [WHITE BAL] to select "AWB A" or "AWB B" for the white balance.**

The selected button's lamp lights.
- The white balance setting is not entered if "ATW" has been selected.

3 **Press the [AWC] button.**

The auto white balance adjustment (AWB) is executed, and the white balance setting is entered.
The [AWC] button's lamp blinks while the white balance is being adjusted, and its lamp goes off when the adjustment is completed successfully. Its lamp lights if the white balance could not be adjusted.
- If color bars have been selected (the [MODE] button or [BAR/CAM] button's lamp lights) or if ATW is selected (the [ATW] button's lamp lights), it means that the [AWC] button is not working or that the auto white balance adjustment has failed. (The button's lamp lights.)

Note
- In the case of the AW-RP655, even when it is not possible to adjust the white balance, the [AWC] button's lamp will not light and after blinking it will go off.

White balance adjustment

Refer to the Operating Instructions of the controller.

Notes

● White balance may not be correctly set if the lighting of the object is too weak.
● Since the unit has a built-in memory, the set white balance will remain in the memory even if power is turned off. Therefore, it is not necessary to reset the white balance if the color temperature of those objects remains unchanged. However, it must be reset if the color temperature changes, such as when you move from indoors to outside, or vice versa.

● Auto tracking white adjustment (ATW)

When the white balance adjustment is set to "ATW", the white balance continues to be adjusted automatically all the time, and it is automatically corrected even when the light source or color temperature has changed to produce completely natural pictures.

This function works when "ATW" is selected instead of "AWB A" or "AWB B" by following the steps for "Automatic adjustment" in "White balance adjustment" (page 22).

Notes

● ATW might not function properly when high brightness light (ex. fluorescent lamp) beams into a screen.
● White balance may not be accurately set if there is no white object in the scene being shot.
● The white balance may shift out of adjustment when a different kind of light source such as sunlight or fluorescent lighting applies.

Black level (master pedestal) adjustment

■ Black level (master pedestal) adjustment

The black level can be adjusted when using a multiple number of cameras including the unit. Ask your dealer to perform this adjustment.
(Use an oscilloscope or waveform monitor for the adjustment.)
Adjust the black level in accordance with the units and devices used.

The black level can be adjusted only when Manual1, Manual2 or Manual3 is selected as the shooting mode (scene file).

```
When performing the operations
using the wireless remote control
```

1 **Press the [M/IRIS] button.**

Set the iris to the manual mode.
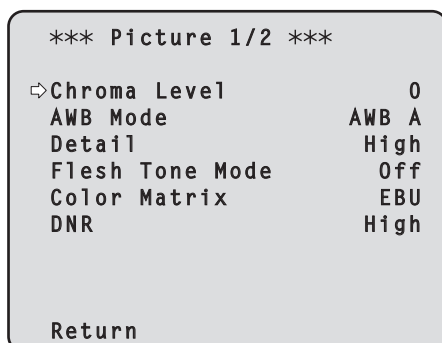
2 **Press the [IRIS –] button.**

The lens iris is stopped down.

3 **Select Manual1, Manual2 or Manual3 by following the procedure in "How to select the shooting mode" (page 10) under "Selecting the shooting modes (scene files)".**
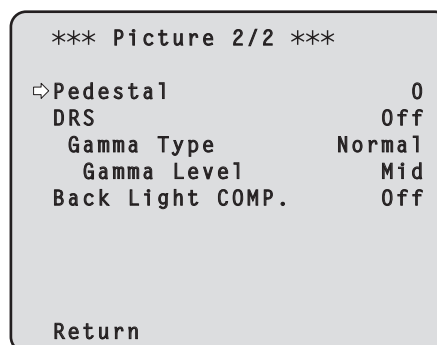
4 **Press the [▲] or [▼] button to bring the cursor to "Picture".**

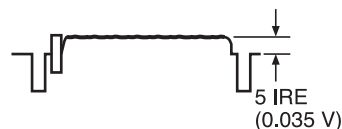**5** **Press the [○] button.**

The "Picture 1/2" sub-menu is displayed.

```
*** Picture 1/2 ***

⇨Chroma Level          0
 AWB Mode           AWB A
 Detail              High
 Flesh Tone Mode      Off
 Color Matrix         EBU
 DNR                 High


 Return
```

6 **Press the [▲] or [▼] button to move to the "Picture 2/2" sub-menu, and bring the cursor to "Pedestal".**

```
*** Picture 2/2 ***

⇨Pedestal              0
 DRS                  Off
  Gamma Type       Normal
   Gamma Level        Mid
 Back Light COMP.     Off



 Return
```

7 **Press the [○] button to start the "Pedestal" value blinking.**

8 **Press the [▲] or [▼] button, change the "Pedestal" value, and press the [○] button to enter the selection.**

Adjust the black level to a value of approx. 5 IRE (0.035 V).

5 IRE
(0.035 V)

9 **Press the [MENU] button for 2 seconds.**

The menu display is exited.

10 **If necessary, press the [A/IRIS] button to adjust the iris automatically.**

Black level (master pedestal) adjustment

When performing the operations using the controller

When the AW-RP655 is connected:

1 Press the [IRIS] button several times to turn off its lamp.

Set the iris to the manual ([MANU]) mode.

2 Turn the [FOCUS/IRIS] dial to stop down the lens iris.

3 Press the [R/B GAIN/PED] button several times so that the "PEDESTAL TOTAL" item is displayed on the LCD panel.

4 Turn the jog dial (main) and adjust the black level to 5 IRE (0.035 V).

5 If necessary, adjust the iris automatically.
→ **Press the [IRIS] button several times to turn on its lamp.**

When the AW-RP555 is connected:

1 Press the [IRIS] button several times to turn off its lamp.

Set the iris to the manual ([MANU]) mode.

2 Turn the [LEVEL] dial of [IRIS] to stop down the lens iris.

3 Follow the operation steps in "Basic operations" (page 36), and use the menu to perform the adjustment.

When the AW-RP50 is connected:

Refer to the Operating Instructions of the controller.

Genlock adjustment (AW-HE50S only)

■ Genlock adjustment

The genlock adjustment is performed to achieve phase alignment by applying external synchronization (genlock) when a multiple number of cameras will be used or when the unit will be used in combination with other devices.
This unit supports the BBS signal as the genlock signal.
Ask your dealer to perform this adjustment.
(Use a dual-trace oscilloscope for the adjustment.)
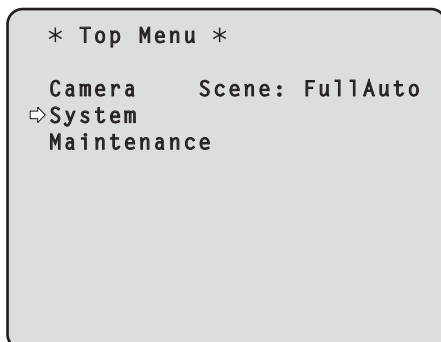(The genlock function is not available with the AW-HE50H.)

● Horizontal phase adjustment

Observe the waveforms of the external sync signal input (black burst signal) and video signal output on the dual-trace oscilloscope, and use the wireless remote control or controller to bring the horizontal phase into alignment.
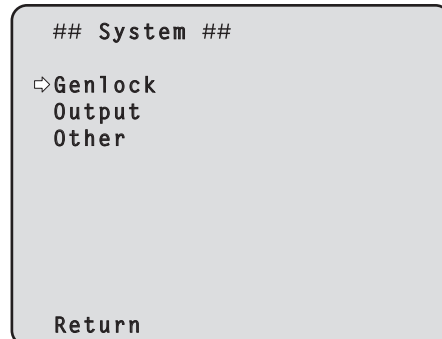
External sync signal input (black burst signal)

Video signal output

Bring the horizontal phase into alignment.
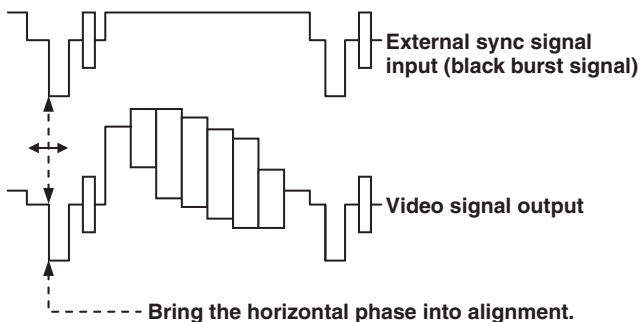
When performing the operations using the wireless remote control

1 Follow the operation steps in "Basic operations" (page 30) to display the "Top Menu".

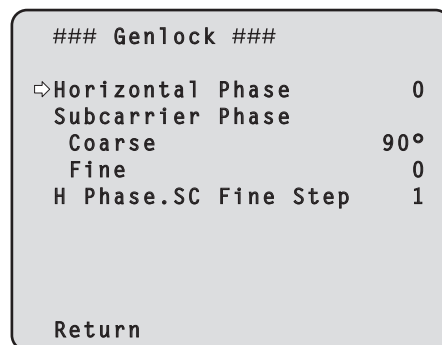**2** Press the [▲] or [▼] button to bring the cursor to "System".

```
 ＊ Top Menu ＊

 Camera     Scene: FullAuto
⇨System
 Maintenance
```

3 Press the [○] button.

The "System" sub-menu is displayed.

```
 ## System ##

⇨Genlock
 Output
 Other




 Return
```

4 Press the [▲] or [▼] button to bring the cursor to "Genlock", and press the [○] button.

The "Genlock" sub-menu is displayed.

```
 ### Genlock ###

⇨Horizontal Phase      0
 Subcarrier Phase
  Coarse             90°
  Fine                0
 H Phase.SC Fine Step   1


 Return
```

5 Press the [▲] or [▼] button to bring the cursor to "Horizontal Phase", and press the [○] button.

The "Horizontal Phase" value starts blinking.

6 Press the [▲] or [▼] button to change the "Horizontal Phase" value, adjust the value so that the horizontal phase is brought into alignment, and press the [○] button.

7 Press the [MENU] button for 2 seconds.

The menu display is exited.

When performing the operations using the controller

These operations can be performed using the camera menus by following the operation steps in "Basic operations" (pages 30 to 37).

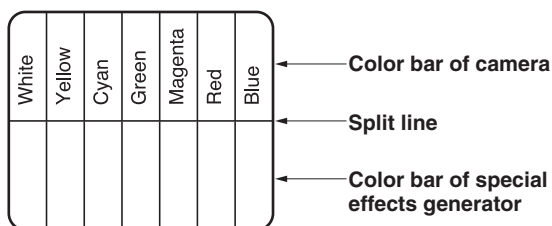# Genlock adjustment (AW-HE50S only)

● Color phase adjustment

The color phase adjustment must be performed if the pictures are to be switched using a video switcher or other device when the video output signals have been set as composite signals.
It need not be performed when the video output signals have been set as component signals.
The camera's color phase is aligned with the program output (split color bar output) signals of a color special effect device or other color tones that will serve as the reference.
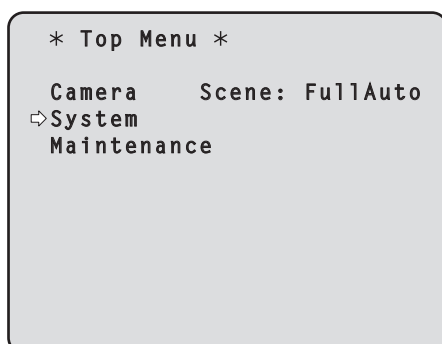(The color phase can be adjusted more accurately if a vectorscope is used for the adjustment.)

White | Yellow | Cyan | Green | Magenta | Red | Blue ◄— **Color bar of camera**

◄— **Split line**

◄— **Color bar of special effects generator**

When performing the operations using the wireless remote control

---

1 **Press the [MODE] button.**

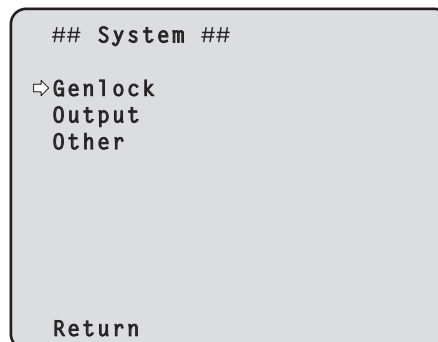The mode is switched to the color bar display.

2 **Follow the operation steps in "Basic operations" (page 32) to display the Top Menu.**

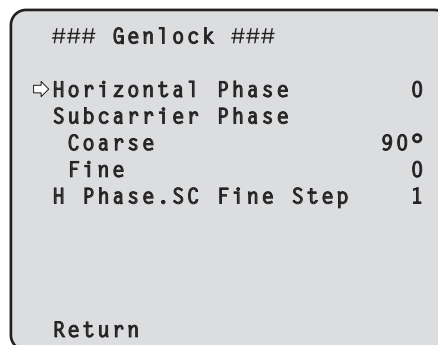**3** **Press the [▲] or [▼] button to bring the cursor to "System".**

```
  * Top Menu *

  Camera    Scene: FullAuto
 ⇨System
  Maintenance
```

4 **Press the [○] button.**

The "System" sub-menu is displayed.

```
  ## System ##

 ⇨Genlock
  Output
  Other




  Return
```

5 **Press the [▲] or [▼] button to bring the cursor to "Genlock", and press the [○] button.**

The "Genlock" sub-menu is displayed.

```
  ### Genlock ###

 ⇨Horizontal Phase        0
  Subcarrier Phase
   Coarse                90°
   Fine                    0
  H Phase.SC Fine Step     1



  Return
```

6 **Press the [▲] or [▼] button to bring the cursor to "Coarse" or "Fine" of "Subcarrier Phase", and press the [○] button.**

The "Coarse" or "Fine" value starts blinking.

7 **Press the [▲] or [▼] button to change the "Coarse" or "Fine" value of "Subcarrier Phase", adjust the value so that the color phase is brought into alignment, and press the [○] button.**

8 **Press the [MENU] button for 2 seconds.**

The menu display is exited.

9 **Press the [MODE] button.**

The mode is switched to the camera picture display.

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Genlock adjustment (AW-HE50S only)

> **When performing the operations using the controller**

These operations can be performed using the camera menus by following the operation steps in "Basic operations" (pages 30 to 37).
To switch between "BAR" (color bar display) and "CAM" (camera pictures), press the [MODE] or [BAR/CAM] button.

Basic operations

Menus are displayed on the monitor when the unit's settings are to be selected.
The monitor is connected to the video signal output connector.
The basic menu operations involve displaying sub-menus from the Top Menu items, and selecting settings on the sub-menus.
Some sub-menus have menu items for performing more detailed settings.

The menu operations are conducted using the wireless remote control.
If a controller is connected, they can also be conducted using the controller.
● It may be necessary to upgrade the controller's version in order to support the AW-HE50.
   For further details, consult with your dealer.

Described below are the basic operations for changing the menu item settings using the wireless remote control and controller (AW-RP655, AW-RP555 or AW-RP50).

> **Only the steps taken using the wireless remote control will be described here for the operations conducted to select and set the items.**
> **For details of the operations conducted using the controller, substitute "controller" for "wireless remote control" when reading the basic operations.**
> **Also, refer to the Operating Instructions of the controller.**

Table of operations

Menu operation	Wireless remote control	Controller		
		AW-RP655	**AW-RP555**	**AW-RP50**
Selecting the unit to be operated	Press the [CAM1], [CAM2], [CAM3] or [CAM4] button.	Press one of the [1] to [5] buttons of [CONTROL/ PREVIEW MONITOR OUT SEL].	Press one of the [1] to [5] buttons of [CONTROL].	Press one of the [CAMERA STATUS/SELECTION] buttons.
Displaying the Top Menu	Press the [MENU] button for 2 seconds.	1. Press the [MENU] button. The display on the AW-RP655's LCD panel changes to the menu mode. 2. Turn the jog dial (main) to display "CAMERA SETTING" on the LCD panel, and press the [OK] button. 3. The scene selection menu now appears on the LCD panel so select the scene to be set, and press the [OK] button. 4. If the "OPEN CAMERA MENU? → OK Key" message appears on the LCD panel, press the [OK] button again.	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 2 seconds.
Selecting the items	Press the [▲] or [▼] ([◄] or [►]) button.	Turn the jog dial (main).	Press the [YES] or [NO] button.	Turn the F1 dial.
Displaying the sub-menus	Press the [○] button.	Press the jog dial (main).	Press the [ITEM] button.	Press the F1 button.

Basic operations

Menu operation	Wireless remote control	Controller		
		AW-RP655	**AW-RP555**	**AW-RP50**
Returning to the previous menu	With the cursor at the [Return] position, press the [○] button.	With the cursor at the [Return] position, press the jog dial (main).	With the cursor at the [Return] position, press the [ITEM] button.	With the cursor at the [Return] position, press the F1 dial.
Changing the settings	With the cursor at the item to be changed, press the [○] button to start the item's value blinking. Use the [▲], [▼], [◄] and [►] buttons to change the value, and press the [○] button to enter the change.	1. Press the jog dial (main) to start the setting blinking. 2. Turn the jog dial (main) to change the setting. 3. Press the jog dial (main) to enter the setting (and stop the blinking).	1. Press the [ITEM] button to start the setting blinking. 2. Press the [YES] or [NO] button to change the setting. 3. Press the [ITEM] button to enter the setting (and stop the blinking).	1. Press the F1 dial to start the setting blinking. 2. Turn the F1 dial to change the setting. 3. Press the F1 dial to enter the setting (and stop the blinking).
Canceling the setting change	While the setting is blinking, press the [MENU] button quickly (for less than 2 seconds).	While the setting is blinking, press the jog dial (R).	While the setting is blinking, press the [MENU] button.	While the setting is blinking, press the [CAMERA OSD] button.
Exiting the menu operations	Press the [MENU] button for 2 seconds.	Press the [MENU] button or [R/B GAIN/PED] button.	Press the [MENU] button for 2 seconds.	Press the [CAMERA OSD] button for 2 seconds.

Notes

● Perform the menu operations and exit from the menus using the controller which displayed the Top Menu.
  If a menu operation has been performed or a menu has been exited using another controller, first display the Top Menu and exit from it using one controller, and then display the Top Menu and exit from it using the other controller.
● The unit uses a different method to operate its menus from the one employed by the convertible cameras (except for the AW-HE870) and HD integrated cameras which have already been launched onto the market.
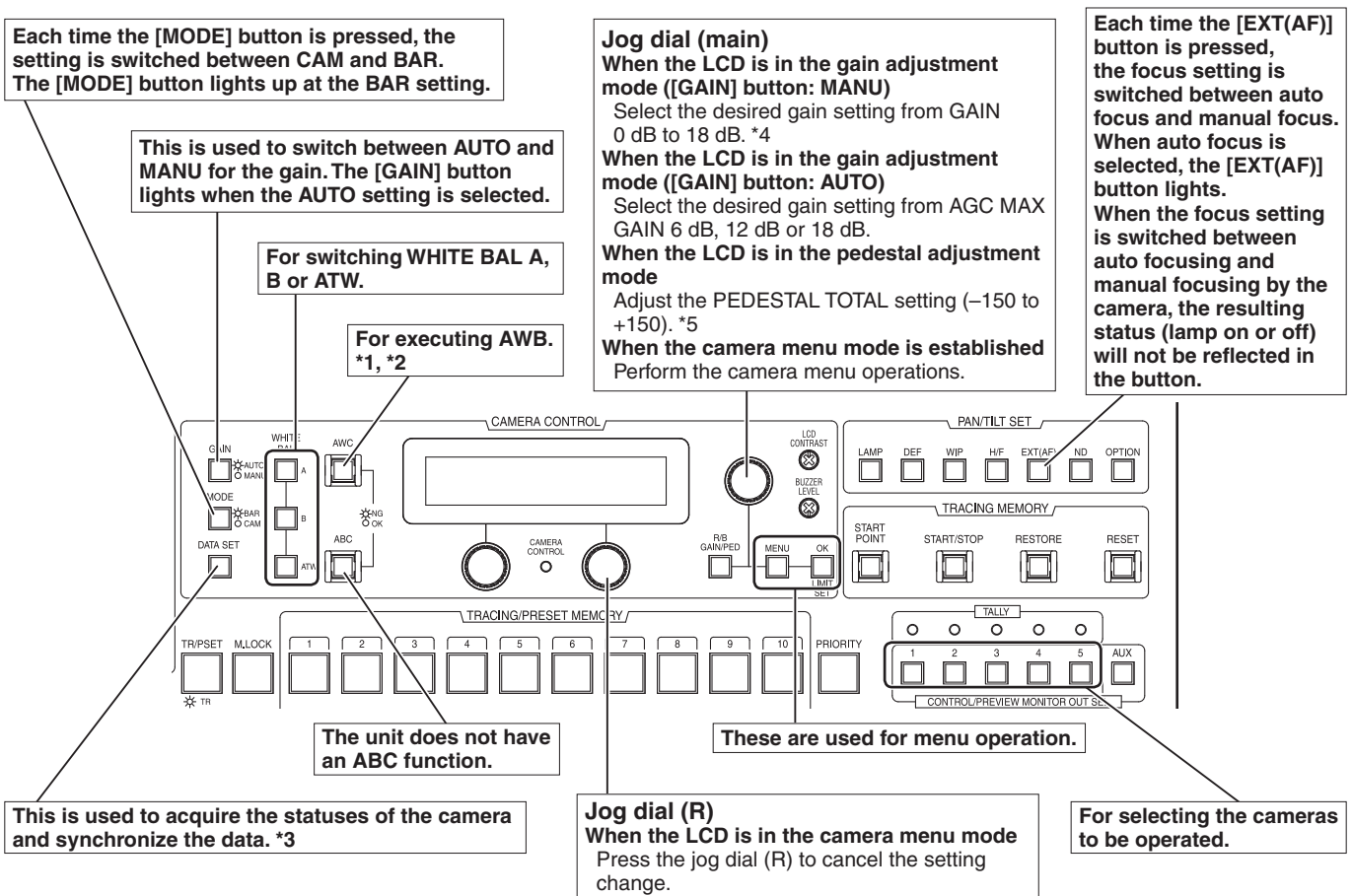 For details, refer to the Operating Instructions of the camera concerned.

Basic operations

■ When performing the operations using the wireless remote control

1 **Press the [CAM1], [CAM2], [CAM3] or [CAM4] button to select the unit which is to be operated.**

2 **Press the [MENU] button for 2 seconds.**

The Top Menu is displayed.

3 **Press the [▲] or [▼] button to bring the cursor to the item to be selected.**

Each time the [▲] or [▼] button is pressed, the cursor moves.
The cursor can be moved in the same way using the [◄] and [►] buttons.

4 **Press the [○] button.**

The sub-menu of the selected item is displayed.
(Some sub-menu items have a sub-menu of their own.)

5 **Press the [▲] or [▼] button to bring the cursor to the item to be set.**

Each time the [▲] or [▼] button is pressed, the cursor moves.
The cursor can be moved in the same way using the [◄] and [►] buttons.
With the cursor at the "Return" position, press the [○] button to return to the previous menu.

6 **Press the [○] button.**

The value of the item to be set starts blinking.

7 **Press the [▲] or [▼] button to change the setting.**

The setting can be changed in the same way using the [◄] and [►] buttons.

8 **Press the [○] button.**

The value of the item to be set is entered, and it stops blinking.

9 **After the setting has been completed, press the [MENU] button for 2 seconds.**

The menu display is exited.

Basic operations

■ Control exercised from the Multi-Function Controller AW-RP655

Each time the [MODE] button is pressed, the setting is switched between CAM and BAR. The [MODE] button lights up at the BAR setting.

This is used to switch between AUTO and MANU for the gain. The [GAIN] button lights when the AUTO setting is selected.

For switching WHITE BAL A, B or ATW.

For executing AWB. *1, *2

Jog dial (main)
When the LCD is in the gain adjustment mode ([GAIN] button: MANU)
Select the desired gain setting from GAIN 0 dB to 18 dB. *4
When the LCD is in the gain adjustment mode ([GAIN] button: AUTO)
Select the desired gain setting from AGC MAX GAIN 6 dB, 12 dB or 18 dB.
When the LCD is in the pedestal adjustment mode
Adjust the PEDESTAL TOTAL setting (–150 to +150). *5
When the camera menu mode is established
Perform the camera menu operations.

Each time the [EXT(AF)] button is pressed, the focus setting is switched between auto focus and manual focus. When auto focus is selected, the [EXT(AF)] button lights. When the focus setting is switched between auto focusing and manual focusing by the camera, the resulting status (lamp on or off) will not be reflected in the button.

The unit does not have an ABC function.

These are used for menu operation.

This is used to acquire the statuses of the camera and synchronize the data. *3

Jog dial (R)
When the LCD is in the camera menu mode
Press the jog dial (R) to cancel the setting change.

For selecting the cameras to be operated.

---

*1: The AWC switch indicator blinks while the white balance is being adjusted. It goes off whether the AWB adjustment is completed successfully or unsuccessfully.

*2: The switch lights without AWB being executed when the white balance mode of the main unit is ATW, or when the Color Bar is being displayed.

*3: SCENE FILE, CAM/BAR, and GAINUP of each SCENE, as well as the W/B MODE and PED statuses are synchronized.

*4: With this unit, the gain setting is reflected in increments of 3 dB in the control.

*5: With this unit, the setting is reflected in increments of 15 dB in the control.
On the camera menu, the setting is adjusted in range from –10 to +10.

Basic operations

● Procedure for camera menu operation (AW-RP655)

1 **Press one of the [1] to [5] buttons of [CONTROL/PREVIEW MONITOR OUT SEL] to select the unit which is to be operated.**

2 **Press the [MENU] button to set the LCD panel display to the menu mode.**

3 **Turn the jog dial (main) until CAMERA SETTING appears, and press the [OK] button.**

```
CAMERA SETTING
         → OK Key
```

4 **When the scene selection menu has appeared on the LCD panel, select the scene to be set, and press the [OK] button.**

```
SCENE        HALOGEN
         → OK Key
```

The scene names displayed on the LCD panel correlate with the scene files of the AW-HE50 as shown below.

AW-RP655 display	AW-HE50 scene file
HALOGEN	Manual1
FLUORESCENT	Manual2
OUTDOOR	Manual3
USER	FullAuto

5 **When the following message appears on the LCD panel, press the [OK] button again.**

```
OPEN CAMERA MENU ?
         → OK Key
```

The menu of the AW-HE50 is displayed on the monitor.

6 **Turn the jog dial (main) to select menu items of the AW-HE50 and change the data.**

Turn the jog dial (main) when the cursor is to be moved up or down or the settings are to be changed.
Press it when moving to the menu at the next lower hierarchical level or changing a setting at the very bottom hierarchical level.

7 **Press the [MENU] button for 2 seconds to exit the camera menu.**

⌐ **Notes** ⌐
- Genlock is set using the camera menu for the AW-HE50.
- It may be necessary to upgrade the software version in order to operate an AW-HE50 from an AW-RP655. Ask your dealer for details.

Basic operations

■ Control exercised from the Multi Hybrid Control Panel AW-RP555

Each time the [GAIN] button is pressed, the setting is switched in the sequence of GAIN AUTO → 0dB → L (9dB) → H (18dB), and the mode is displayed by the LEDs as shown below.
[ON: LED lighted; OFF: LED off]

	GAIN button	MANU L LED	MANU H LED
AUTO	ON	OFF	OFF
0dB	OFF	OFF	OFF
LOW	OFF	ON	OFF
HIGH	OFF	OFF	ON
Others	OFF	ON	ON

Each time the [MODE] button is pressed, the setting is switched between CAM and BAR.
The [MODE] button lights up at the BAR setting.

For selecting the cameras to be operated.

Shutter mode selection
Each time this button is pressed, one of the shutter modes set by the controller or "shutter OFF" is selected.
The [SHUTTER] button lights up in all modes except shutter OFF.
The shutter mode settings established by the [PRESET] buttons are as follows.

MODE	PRESET No.	MODE	PRESET No.
1/100	PRESET1	1/10000	PRESET7
1/250	PRESET2	SYNCHRO-SCAN	PRESET8
1/500	PRESET3		
1/1000	PRESET4	ELC	PRESET9
1/2000	PRESET5	OFF	PRESET10
1/4000	PRESET6		

For executing AWB. *1, *2

The unit does not have an ABC function.

For switching the SCENE file (FullAuto, Manual1 to 3).

For operating the camera menus.
MENU: This operates in the same way as MENU on the camera.
ITEM: This operates in the same way as ENTER on the camera.
YES: This operates in the same way as UP on the camera.
NO: This operates in the same way as DOWN on the camera.

Each time the [EXT(AF)] button is pressed, the focus setting is switched between auto focus and manual focus.
When auto focus is selected, the [EXT(AF)] button lights.
When the focus setting is switched between auto focusing and manual focusing by the camera, the resulting status (lamp on or off) will not be reflected in the button.

For switching WHITE BAL A, B or ATW.

*1: The lamp of the AWC switch flashes while automatic white balance is being executed. When AWB is completed successfully, the lamp goes off; when it is not completed successfully, it lights up.

*2: The switch lights without AWB being executed when the white balance mode of the main unit is ATW, or when the Color Bar is being displayed.

Basic operations

●Procedure for camera menu operation (AW-RP555)

1 **Press one of the [1] to [5] buttons of [CONTROL] to select the unit which is to be operated.**

2 **Press the [MENU] button of the AW-RP555 for 2 seconds.**

The camera menu of the AW-HE50 is displayed on the monitor.

3 **Perform one of the following steps to select the menu item.**

If the [YES] button is pressed, the selection item moves up; if the [NO] button is pressed, it moves down.

4 **Press the [ITEM] button.**

The value of the item to be set starts blinking.

5 **Press the [YES] or [NO] button to change the setting.**

6 **After deciding on the setting, press the [ITEM] button.**

The value of the item to be set is entered, and it stops blinking.

7 **Press the [MENU] button for 2 seconds to exit the camera menu.**

Note

● It may be necessary to upgrade the software version in order to operate an AW-HE50 from an AW-RP555. Ask your dealer for details.

Basic operations

■ Control exercised from the Remote Camera Controller AW-RP50

For operating the camera menus.

CAMERA OSD:
When this is pressed for 2 seconds, the selected camera menu is displayed, overlapping the camera output image. When it is pressed for 2 seconds while a camera menu is displayed, the menu is cleared.

F1: Turn F1 to move the cursor up or down on the camera menu or change the setting. Press it when moving to the menu at the next lower hierarchical level or changing a setting at the very bottom hierarchical level.

For selecting the cameras to be operated.

● Procedure for camera menu operation (AW-RP50)

1 Press one of the [CAMERA STATUS/ SELECTION] buttons to select the unit which is to be operated.

2 Press the [CAMERA OSD] button of the AW-RP50 for 2 seconds.

The camera menu of the AW-HE50 is displayed on the monitor.

3 Turn the F1 dial to select the AW-HE50 menu item or change the data.

Turn the F1 dial to move the cursor up or down or change the setting.
Press it to move to the menu at the next lower hierarchical level or change a blinking setting at the very bottom hierarchical level.

4 Press the [CAMERA OSD] button for 2 seconds to exit the camera menu.

Setting the menu items

■ Setting the menu items

When the unit's settings are to be selected, the menus are displayed on the monitor.
The monitor is connected to the video signal output connector.
The basic menu operations involve displaying sub-menus from the Top Menu items, and selecting settings on the sub-menus.
Some sub-menus have menu items for performing more detailed settings.
For details on the basic operations to display the menus and change the items using the wireless remote control or controller (AW-RP655, AW-RP555 or AW-RP50), refer to pages 30 to 37.

The "✳" and "#" marks in the menu titles indicate the hierarchical level of the menu currently displayed.
For instance, "✳ `Top Menu` ✳" indicates the first hierarchical level whereas "✳✳ `Camera` ✳✳" and "## `System` ##" indicate that the second hierarchical level is now displayed.
Menu items accompanied by a "✳" mark indicate data which is stored on a scene by scene basis; menu items accompanied by a "#" mark indicate data which is stored together for one camera regardless of the scenes.

■ Top Menu

```
 ✳ Top Menu ✳

 ⇨Camera      Scene: FullAuto
  System
  Maintenance
```
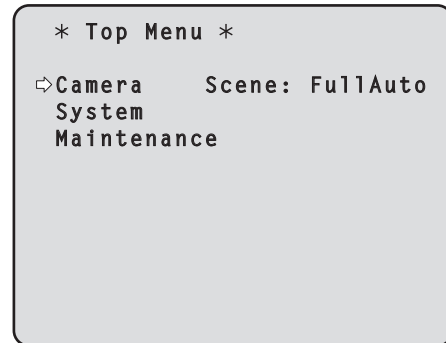
Camera
Select this to open the camera menu relating to the camera images.

System
Select this to display the System menu used to adjust the genlock (external synchronization) phase or establish the camera output image settings.

Maintenance
Select this to display the Maintenance menu used to check the camera's firmware version or initialize its settings.

┌─ **Note** ─────────────────────────────┐
● The Top Menu does not have a "Return" setting.
  To close the menu screen, use the controller to perform the operation to close the menu screen.
  For details, refer to pages 30 to 37.
└──┘

Setting the menu items

■Camera screen (when FullAuto is selected)

This menu is used for the camera image settings.

```
** Camera **

⇨Scene            FullAuto
   Contrast Level        0




   Return
```

Scene
[FullAuto, Manual1, Manual2, Manual3]
    Selected here is the shooting mode that matches the
    shooting situation.
    Select the mode which best suits the prevailing shooting
    conditions and the user's preferences.

FullAuto: In this mode, the optimum settings and
                 adjustments for the shooting conditions at
                 hand are automatically established.
                 When "FullAuto" has been selected, the
                 detailed setting and adjustment menus
                 are not displayed.

Manual1 to 3: In these modes, the detailed settings and
                 adjustments are established manually to
                 match the prevailing shooting conditions
                 and the user's preferences.
                 When the Manual1, Manual2 or Manual3
                 mode has been selected, the detailed
                 setting and adjustment menu for the
                 mode concerned is displayed.

Contrast Level [–5 to +5]
    Use the contrast level to adjust the image brightness.

Return
    Use this to return to the previous menu.

■Camera screen (when Manual1 to 3 is selected)

```
** Camera **

⇨Scene              Manual1
   Contrast
   Picture




   Return
```
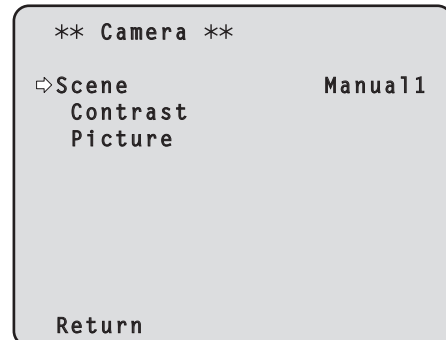
Scene
[FullAuto, Manual1, Manual2, Manual3]
    Refer to section on Scene in the column on the left.

Contrast
    Select this to display the Contrast screen to adjust the
    brightness.

Picture
    Select this to display the Picture screen to adjust the
    image quality.
    Two screens (Picture 1/2 and Picture 2/2) are provided for
    the image quality adjustment menu.

Return
    Use this to return to the previous menu.

Setting the menu items

■Contrast screen
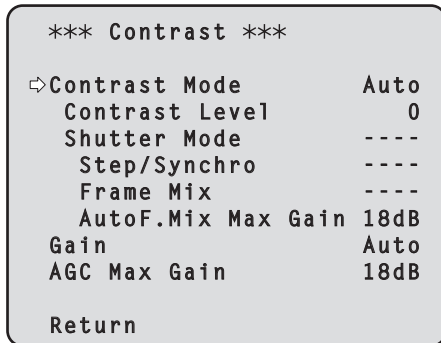
```
   *** Contrast ***

 ⇨Contrast Mode       Auto
   Contrast Level         0
   Shutter Mode        ----
    Step/Synchro       ----
    Frame Mix          ----
    AutoF.Mix Max Gain 18dB
 Gain                  Auto
 AGC Max Gain          18dB

   Return
```

Contrast Mode [Auto, Manual]

This item is used to select whether the image brightness (contrast) is to be controlled automatically or manually.

Auto: The iris, shutter speed and frame addition are controlled and the camera brightness is adjusted automatically.

Manual: Operations are performed using the manually set values.

Contrast Level [–5 to +5]

Set here is the contrast level when the image brightness is adjusted.
This item can be set when "Auto" has been selected as the "Contrast Mode" setting.

Shutter Mode [Off, Step, Synchro]

Select for camera shutter speed.
This item can be set when "Manual" has been selected as the "Contrast Mode" setting.

Off: The shutter is set to OFF (so that it cannot be tripped).

Step: The step shutter is set (the steps can be changed).

Synchro: The synchro shutter is set (the setting can be changed continuously).

Step/Synchro

This is used to adjust the shutter speed in the mode which was selected as the "Shutter Mode" setting.
When a higher shutter speed is selected, fast-moving subjects do not become blurred easily but the images will be darker.

The shutter speeds that can be set are listed below.

When "Step" is selected as the "Shutter Mode"	When "Synchro" is selected as the "Shutter Mode"
1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	60.24 Hz to max. 646.21 Hz (255 steps)

Frame Mix [Auto, Off, 6dB, 12dB, 18dB]

Select for frame addition (gain-up using sensor storage) amount.
This item can be set when "Off" is selected as the "Shutter Mode" item setting.
When frame addition is performed, it will appear as if the images are missing some frames.

AutoF. Mix Max Gain
[0dB, 6dB, 12dB, 18dB]

When "Auto" for the "Contrast Mode" or "Auto" for the "Frame Mix" is selected, the maximum frame addition amount can be set.
If frame addition is performed at the Auto setting, it will appear as if the images are missing some frames.

Gain [Auto, 0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB]

The image gain is adjusted here.
In locations which are too dark, adjust the gain upward; conversely, in locations which are too bright, adjust it downward.
When "Auto" is set, the light quantity is adjusted automatically.
The noise increases when the gain is increased.

AGC Max Gain [6dB, 12dB, 18dB]

When "Auto" is selected as the "Gain" setting, the maximum gain-up amount can be set.

Return

Use this to return to the previous menu.

Setting the menu items

■ Picture 1/2 screen

```
*** Picture 1/2 ***

⇨ Chroma Level              0
  AWB Mode              AWB A
  Detail                 High
  Flesh Tone Mode         Off
  Color Matrix            EBU
  DNR                    High



  Return
```
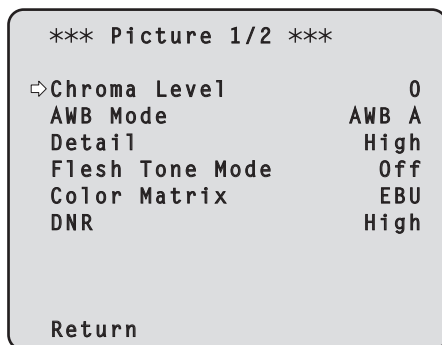
Chroma Level [–3 to +3]
Set here is the color intensity (chroma level) of the images.

AWB Mode [ATW, AWB A, AWB B]
The white balance mode is selected here.
Select the mode when the coloring is not natural because of the nature of the light source or other factors.
If the white color serving as the reference can be recognized, subjects can be shot with natural coloring.
ATW: In this mode, the white balance is compensated for automatically, even if changes occur in the light source or color temperature, by a process of continuous and automatic adjustment.
AWB A, AWB B:
When AWB A or AWB B is selected and the white balance is executed, the adjustment results obtained are stored in the memory selected.
When AWB A or AWB B is then selected, the white balance stored in the selected memory can be recalled.

> **Note**
> ● When preset settings have been called from the AW-RP655, the AWB mode which was set when the preset data was registered by the AW-RP655 will be called.

Detail [Off, Low, High]
The image detail (image sharpness) is adjusted here.
When "Low" or "High" is selected, the detail is enhanced.

Flesh Tone Mode [Off, Low, High]
Set here is the flesh tone mode for displaying the subjects' skin so that it appears more smoothly and eye-pleasingly.
When "Low" or "High" is selected, the effect is enhanced even more.

Color Matrix [Normal, EBU, NTSC]
This item is used to load the preset color matrix data and compensate for the saturation and color phase.

DNR [Off, Low, High]
Set here is the level of the digital noise reduction effect so that light, noise-free and clear images will be output even at night and in other low-brightness environments.
When "Low" or "High" is selected, even more noise can be eliminated.
However, there is an increased possibility that afterimages may occur.

Return
Use this to return to the previous menu.

Setting the menu items

■Picture 2/2 screen

```
*** Picture 2/2 ***

⇨Pedestal              0
 DRS                  Off
  Gamma Type       Normal
   Gamma Level        Mid
 Back Light COMP.     Off




 Return
```

Pedestal [–10 to +10]
This item is used to adjust the black level (adjust the pedestal) so that the dark parts of the images are easier to see.
These parts become darker when a negative setting is selected and, conversely, lighter when a positive setting is selected.

DRS [Off, Low, High]
Set here is the DRS function which provides just the right amount of compensation when images with significant light/dark differences are displayed.
When "Low" or "High" is selected, the effect is enhanced even more.
This may make noise more perceptible with some scenes.

Gamma Type [Off, Normal, Cinema]
Selected here is the type of gamma curve.
The selected setting takes effect when "Off" is selected as the "DRS" item setting. Normally, the "Normal" setting is used. When "Cinema" is selected, images giving off an atmosphere like movies can be shot.

Gamma Level [Low, Mid, High]
This item is used to adjust the gamma compensation level. The selected setting takes effect when "Off" is selected as the "DRS" item setting or when "Normal" is selected as the "Gamma Type" setting.
When "Low" is set, the images appear sedate and composed. The resulting gamma curve has a gentle gradient in the low-brightness areas, and the contrast is sharper.
Conversely, when "High" is set, the tonal range in the dark area is expanded so that the images take on a lighter tone. The resulting gamma curve has a sharp gradient in the low-brightness areas, and the contrast is softer.

Back Light COMP. [Off, On]
"On" or "Off" is set here for the backlight compensation function.
Under backlight conditions, the function prevents darkening as a result of light striking the backs of subjects, and makes it possible to shoot images in shade or shadow more brightly.
The function takes effect when "Auto" has been selected as the Contrast Mode, Gain or Frame Mix item setting.

Return
Use this to return to the previous menu.

■System screen

This menu has items that relate to the genlock phase adjustment and camera's output image settings.

```
## System ##

⇨Genlock
 Output
 Other




 Return
```
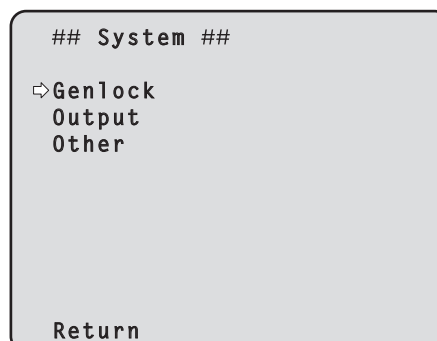
Genlock (AW-HE50S only)
This displays the Genlock screen on which to perform the phase adjustments.
With the AW-HE50H, this item cannot be selected.

Output
This displays the Output screen on which to select the camera's output image settings.

Other
This displays the Other screen on which to select the settings for the installation status of the camera's pan-tilt head unit and operating speed as well as the settings relating to the other functions.

Return
Use this to return to the previous menu.

Setting the menu items

■ Genlock screen (AW-HE50S only)
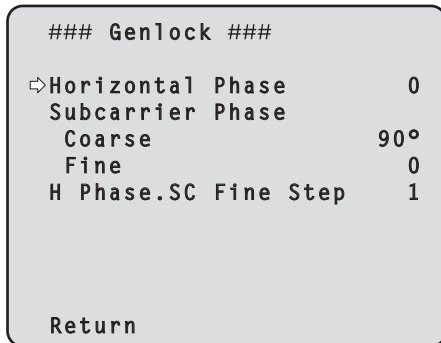
```
### Genlock ###

⇨Horizontal Phase        0
 Subcarrier Phase
  Coarse               90°
  Fine                   0
 H Phase.SC Fine Step     1



 Return
```

Horizontal Phase [–206 to +49]
This is used to adjust the horizontal phase during genlock.

Subcarrier Phase Coarse [0° to 315°]
This is used to adjust coarsely the color phase during genlock.
This setting is valid for the VBS signal output.

Subcarrier Phase Fine [–127 to +127]
This is used to adjust finely the color phase during genlock.
This setting is valid for the VBS signal output.

H Phase. SC Fine Step [1 to 10]
This is used to select the amount by which the horizontal phase (Horizontal Phase) is to be adjusted and by which the color phase (Subcarrier Phase Fine) is to be adjusted finely.

Return
Use this to return to the previous menu.

■ Output screen

```
### Output ###

⇨Format                1080i
 Down CONV. Mode     Squeeze
 HDMI Color         YCbCr422




 Return
```
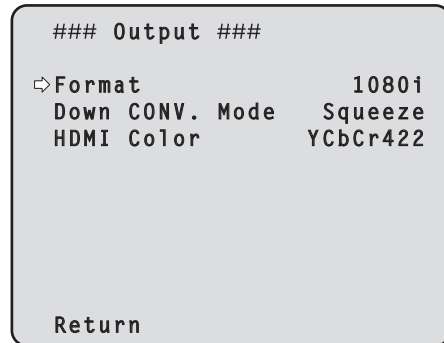
Format [1080i, 720p, 480i]
The video format is changed on this screen.
For details on how to change the format, refer to "Changing the format" (page 45).

Down CONV. Mode [Squeeze, SideCut, LetterBox]
The down-conversion mode is selected here.

Squeeze	When the 4:3 aspect ratio has been set for the monitor screen, the images are squeezed horizontally and extended vertically changing the view of the angle.
SideCut	With the vertical height serving as the reference, the parts which extend beyond this at the two sides are cropped changing the view of the angle.
LetterBox	With the horizontal width serving as the reference, black bands are added at the top and bottom changing the view of the angle.

● **When output is selected for the color bar, the mode is fixed to Squeeze.**
If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

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Setting the menu items

HDMI Color (AW-HE50H only)
[RGB-NOR, RGB-ENH, YCbCr422, YCbCr444]

Set here is the HDMI color output.
● When an HDMI monitor is used, use "YCbCr422" under normal circumstances.
● In cases where, for instance, HDMI (RGB) signals are converted and output to a DVI monitor, the settings required will differ depending on the color gradation supported by the monitor.

RGB-NOR	The RGB output signals are output in the 16 to 235 range.
RGB-ENH	The RGB output signals are output in the 0 to 255 range.

● If the black parts of the images appear overexposed when "RGB-NOR" has been selected, use the "RGB-ENH" setting instead.
● Conversely, if the images are displayed with a loss of dark detail when "RGB-ENH" has been selected, use the "RGB-NOR" setting instead.

Note

● If an HDMI Color setting which is not supported by the monitor has been specified, the HDMI Color setting may be changed automatically.
(The menu display will remain unchanged.)

With the AW-HE50S, this item cannot be selected.

Return

Use this to return to the previous menu.

Setting the menu items

●Changing the format

When the format is changed on the Output screen from its current setting, the Format change check screen appears.

Format change check screen
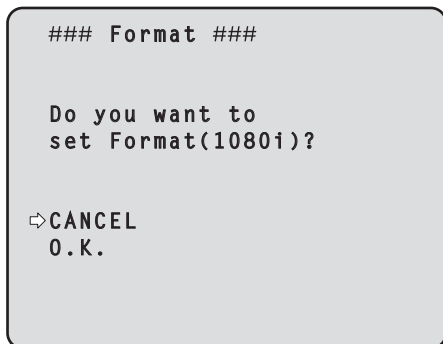
```
### Format ###


Do you want to
set Format(1080i)?


⇨CANCEL
 O.K.
```
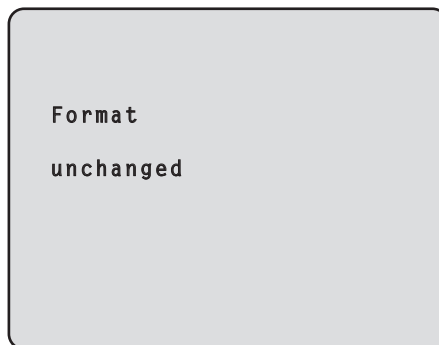
- The format (1080i, 720p or 480i) to be set is displayed within the parentheses on the screen.
- When the cursor is moved to "O.K." on the format change check screen and the setting is entered, the Format Set screen appears for 5 seconds, and the format is changed.
  After the format has been changed, the display returns to the Output screen.

Format Set screen
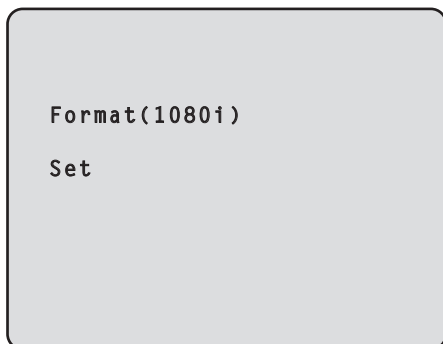
```
Format(1080i)

Set
```

- The format (1080i, 720p or 480i) to be set is displayed within the parentheses on the screen.
- When the cursor is moved to "CANCEL" on the format change check screen and the setting is entered, the Format unchanged screen appears for 5 seconds, the format is left unchanged, and the display returns to the Output screen.

Format unchanged screen

```
Format

unchanged
```

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Setting the menu items

■Other 1/2 screen

```
### Other 1/2 ###

⇨Install Position   Desktop
 Preset Speed            10
 Preset Scope        Mode A
 Digital Zoom       Disable
 Speed With Zoom POS.    On
 Focus Mode           Auto
  Focus ADJ With PTZ.   On


 Return
```

Install Position [Desktop, Hanging]
"Desktop" or "Hanging" is selected here as the method used to install the unit.
Desktop: Stand-alone installation
Hanging: Suspended installation
● When "Hanging" has been selected, the top, bottom, left and right of the images will be reversed, and up/down/left/right control for panning and tilting will also be reversed.

Preset Speed [1 to 30]
There are 30 preset pan-tilt operation speeds of when regenerating the camera direction and other information which are registered in the preset memory.

> **Notes**
>
> ● If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.
> ● When connecting the unit to the AW-RP655 for use, the "DIAGONAL SPEED (P/T SETTING)" setting of the AW-RP655 takes effect.
>   To change the Preset Speed, change the AW-RP655 setting.

Preset Scope [Mode A, Mode B, Mode C]
Selected here are the setting items to be recalled when the contents of the preset memory are regenerated.
Mode A: Pan, Tilt, Zoom (including digital zoom), Focus, Iris, Gain, White-BAL
Mode B: Pan, Tilt, Zoom (including digital zoom), Focus, Iris
Mode C: Pan, Tilt, Zoom (including digital zoom), Focus

Digital Zoom [Disable, Enable]
"Enable" or "Disable" is set here for the digital zoom function.
If zooming is performed toward the Tele end beyond the maximum position when "Enable" has been selected, the digital zoom can be operated continuously. Zooming will stop temporarily at the position where the optical zoom and digital zoom are switched so after it has stopped at this position, proceed with zooming again.
When the setting is changed to "Disable" while already in the digital zoom region, the zoom will automatically move to the maximum position of the optical zoom.

Speed With Zoom POS. [Off, On]
"On" or "Off" is set here for the function used to adjust the camera direction's adjustment speed in conjunction with the zoom magnification.
When "On" is set, the panning and tilting operations will become slower in the zoom status.
This function has no effect during preset operations.

Focus Mode [Auto, Manual]
"Auto" or "Manual" is set here for the focusing function.
Auto: The subjects are always brought into focus automatically.
Manual: The focus is operated manually.

Focus ADJ With PTZ. [Off, On]
"On" or "Off" is set here for the function which compensates for out-of-focusing when it occurs during panning, tilting or zooming operations at the manual focus setting.
When "Off" is set, adjust the focus as required after zooming or set the focus to the auto mode. This item can be selected only when "Manual" has been selected as the "Focus Mode" setting.

Return
Use this to return to the previous menu.

Setting the menu items

■ Other 2/2 screen
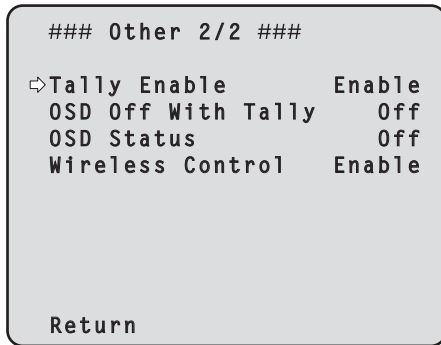
```
### Other 2/2 ###

⇨Tally Enable        Enable
 OSD Off With Tally    Off
 OSD Status            Off
 Wireless Control    Enable




 Return
```

Tally Enable [Disable, Enable]
　"Enable" or "Disable" is set here for the function which
　turns on or turns off the tally lamp using the tally control
　signal.

OSD Off With Tally [Off, On]
　This is used to enable or disable the function for clearing
　the OSD menu displays when the tally signal is received
　by a command or contact.
　When the tally signal is released, the original OSD menu
　displays are restored.

OSD Status [Off, On]
　"On" or "Off" is set here for the status display which
　appears during AWB operations.

Wireless Control [Disable, Enable]
　"Enable" or "Disable" is set here for operations conducted
　from the wireless remote control.
　The operations are enabled when the unit's power is
　turned on from an external device other than a wireless
　remote control, and they are disabled when the power is
　turned on from a wireless remote control.

● At the point when this item's setting is changed, the
　new setting is not reflected in operation.
　It is reflected when the unit is set to the standby mode
　and its power is turned on.

　Follow one of the procedures below if the item's setting
　is changed by mistake and the unit can no longer be
　operated from a wireless remote control.

● **When menu operations can be performed using
　another control device:**
　First change the item using a control device capable
　of performing menu operations, and then turn off the
　unit's power and turn it back on.

● **When menu operations cannot be performed using
　other control devices:**
　1. Turn off the power of the units and devices that are
　　connected.
　2. Disconnect the unit's power cable, and plug it back
　　in.
　3. Perform the operation for turning on the unit's
　　power from the wireless remote control.
　4. After changing this item, turn off the unit's power
　　and turn it back on.

Return
　Use this to return to the previous menu.

Setting the menu items

■ Maintenance screen

```
## Maintenance ##

⇨Firmware Version
 Initialize




 Return
```
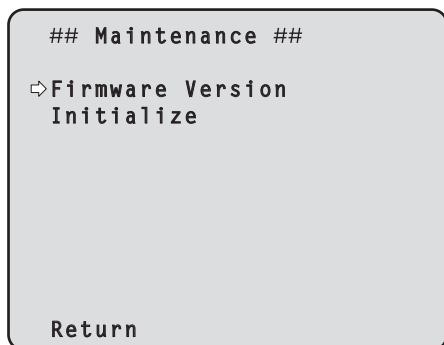
Firmware Version
This is selected to display the Firmware Version screen on which to check the version of the firmware used.

Initialize
This is selected to display the Initialize screen on which to initialize the camera's settings.
For details on operation, refer to "Concerning initialization" on page 49.

Return
Use this to return to the previous menu.

■ Firmware Version screen

```
### Firmware Version ###

CPU Software
 Camera Main       V01.00
 Pan/Tilt          V01.00
 Network           V01.00

PLD
 Camera            V01.00
 Output            V01.00

⇨Return
```
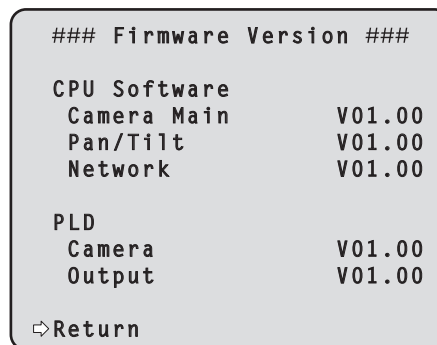
CPU Software Camera Main
This is selected to display the software version of the camera unit.

CPU Software Pan/Tilt
This is selected to display the software version of the pan-tilt unit.

CPU Software Network
This is selected to display the software version of the network unit.

PLD Camera
This is selected to display the PLD version of the camera unit.

PLD Output
This is selected to display the PLD version of the output unit.

Return
Use this to return to the previous menu.

Setting the menu items

●Concerning initialization

When "Initialize" is selected on the Maintenance screen, the Initialize screen appears.

Initialize screen

```
### Initialize ###


Do you want to initialize
Menu settings?


⇨CANCEL
 O.K.


 Return
```
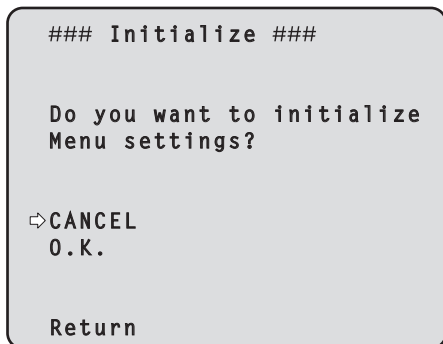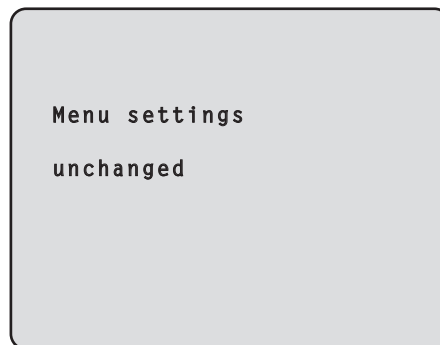
- When the cursor is moved to "O.K." on the Initialize screen and the setting is entered, the Menu settings initialize screen is displayed for 5 seconds, and the camera settings are restored to the settings which were established when the camera was purchased. However, the Format settings (see page 43) and network settings are not initialized.
  When the initialization operation is completed, the Initialize screen is restored to the display.

Menu settings initialized screen

```
Menu settings

initialized
```
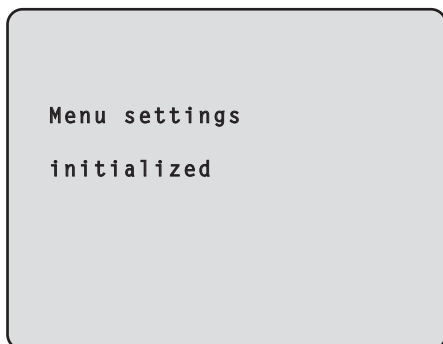
- When the cursor is moved to "CANCEL" on the Initialize screen and the setting is entered, the Menu settings unchanged screen is displayed for 5 seconds, the initialization operation is not performed, and the Initialize screen returns to the display.

Menu settings unchanged screen

```
Menu settings

unchanged
```

Menu item table

Menu				Item	Factory setting		Selection items
					FullAuto	**Manual1 to 3**	
Top Menu	Camera	Scene		Scene	FullAuto		FullAuto, Manual1, Manual2, Manual3
			Contrast	Contrast Mode	----	Auto	Auto, Manual
				Contrast Level	0	0	–5 to +5
				Shutter Mode	----	----	Off, Step, Synchro
				Step/Synchro (When "Step" is selected as the "Shutter Mode")	----	----	1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
				Step/Synchro (When "Synchro" is selected as the "Shutter Mode")	----	----	60.24Hz to 646.21Hz (1 to 255step)
				Frame Mix	----	----	Auto, Off, 6dB, 12dB, 18dB
				AutoF.Mix Max Gain	----	18dB	0dB, 6dB, 12dB, 18dB
				Gain	----	Auto	Auto, 0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB
				AGC Max Gain	----	18dB	6dB, 12dB, 18dB
		Picture	Picture 1/2	Chroma Level	----	0	–3 to +3
				AWB Mode	----	AWB A	ATW, AWB A, AWB B
				Detail	----	High	Off, Low, High
				Flesh Tone Mode	----	Off	Off, Low, High
				Color Matrix	----	EBU	Normal, EBU, NTSC
				DNR	----	High	Off, Low, High
			Picture 2/2	Pedestal	----	0	–10 to +10
				DRS	----	Off	Off, Low, High
				Gamma Type	----	Normal	Off, Normal, Cinema
				Gamma Level	----	Mid	Low, Mid, High
				Back Light COMP.	----	----	Off, On
	System	Genlock (AW-HE50S only)		Horizontal Phase	0		–206 to +49
				Subcarrier Phase			
				Coarse	90°		0° to 315°
				Fine	0		–127 to +127
				H Phase.SC Fine Step	1		1 to 10
		Output		Format	1080i		1080i, 720p, 480i
				Down CONV. Mode	Squeeze		Squeeze, SideCut, LetterBox
				HDMI Color (AW-HE50H only)	YCbCr422		RGB-NOR, RGB-ENH, YCbCr422, YCbCr444
		Other	Other 1/2	Install Position	Desktop		Desktop, Hanging
				Preset Speed	10		1 to 30
				Preset Scope	Mode A		Mode A, Mode B, Mode C
				Digital Zoom	Disable		Disable, Enable
				Speed With Zoom POS.	On		Off, On
				Focus Mode	Auto		Auto, Manual
				Focus ADJ With PTZ.	---		Off, On
			Other 2/2	Tally Enable	Enable		Disable, Enable
				OSD Off With Tally	Off		Off, On
				OSD Status	Off		Off, On
				Wireless Control	Enable		Disable, Enable
	Maintenance	Firmware Version		CPU Software			
				Camera Main	Version shipped		----
				Pan/Tilt	Version shipped		----
				Network	Version shipped		----
				PLD			
				Camera	Version shipped		----
				Output	Version shipped		----
		Initialize		----	CANCEL		CANCEL, OK

Web setting screen

Connect the unit and a personal computer, and establishing the settings on the Web browser screen.

The LAN crossover cable is used when connecting a personal computer directly to the unit's LAN connector for IP control, and the LAN straight cable is used when making the connection through a switching hub.

Select an IP address for the personal computer within the private address range while ensuring that it is different from the address of the unit.
Set the subnet mask to the same address as the unit.

Note

● If you need to change the IP address and subnet mask, be sure to ask your dealer to make these changes for you.

Unit's IP address and subnet mask (factory settings)
   IP address: 192.168.0.10
   Subnet mask: 255.255.255.0

For details of the required personal computer environment, refer to page 4.

Web setting screen

∎ Menu operations

Start the Web browser, and enter "**http://192.168.0.10/**" in the [Address] box of the Web browser.
When the IP address has been changed, the URL will also change.
If this is the case, set the changed IP address to the URL (http://changed IP address/).

● The menus can be switched by selecting the buttons on the left side of the screen.

<Control>   <Setup>
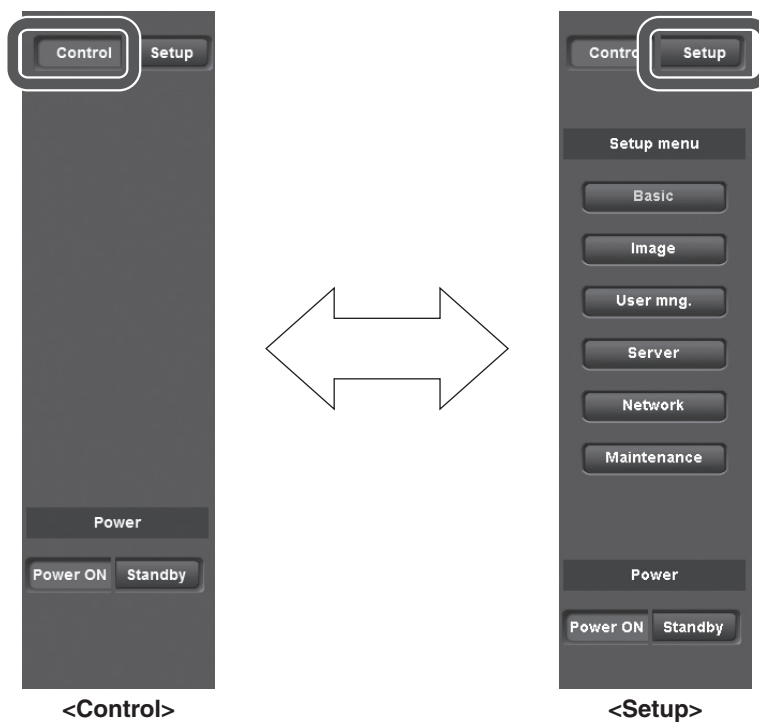
Web setting screen

● **Control button / Setup button** [Control] [Setup]

Press the Control button to switch to the Control screen on which to control such operations as the panning, tilting, zooming and focusing of the camera. (See page 54)
Press the Setup button to switch to the Image Adjust screen on which to establish the camera's settings. (See page 56)

When the Setup button is pressed, the login screen shown below is displayed.
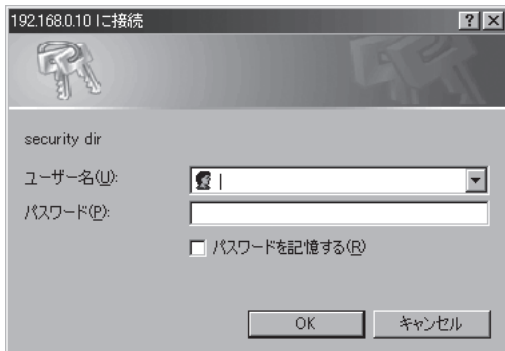
When logging in for the first time, input the following default values.

User name	admin
Password	12345

When the OK button is clicked after inputting the values, the screen shown below is displayed.
Click the OK button.
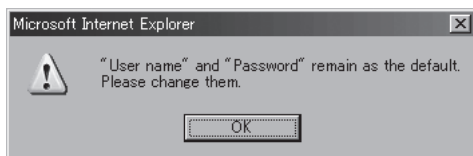
> **Note**
> ● On the User auth. screen (see page 66), register the user name and password of your choice at the earliest possible opportunity.

● **Power ON button / Standby button**
[Power ON] [Standby]

The unit's power is turned on when the Power ON button is pressed.
When the Standby button is pressed, the unit is set to the standby mode.
While the standby mode is established, the control over the camera's operations exercised on the Control screen and both the Image button and Maintenance button on the Setup screen are disabled.

> **Note**
> ● If Power ON or Standby is selected too quickly, the status selected and the display shown may not correspond.
> In a case like this, press the F5 key to restore the correct status display.

Web setting screen

■Control screen

This is the screen on which such operations as the panning, tilting, zooming and focusing of the unit can be controlled.

- **Zoom**

⊖	Use this to adjust the zoom (magnification) in the Wide direction.
×1.0	Use this to adjust the zoom (magnification) to 1.0×.
⊕	Use this to adjust the zoom (magnification) in the Tele direction.

- **Focus**

Manual	Use this to adjust the focus manually.
Near	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
Far	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.
One Touch AF	When this is pressed while the focus is being adjusted manually, the focus will be temporarily adjusted automatically. It does not work during automatic adjustments.
Auto	Use this to adjust the focus automatically.

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Web setting screen

● **Control pad and its buttons**

	To adjust the image in the horizontal or vertical direction (panning or tilting), left-click the pad and the buttons. The more the outside of the pad is clicked, the faster the camera operates. Adjustment is also possible by dragging the mouse. Right-click the pad to initiate zooming and focusing. When the top half of the pad is clicked in the up or down direction, the zoom (magnification) is adjusted in the Tele direction; conversely, when the bottom half of the pad is adjusted, the zoom is adjusted in the Wide direction. When the left half of the pad is clicked in the left or right direction, the focus is adjusted in the Near direction; conversely when the right half of the pad is adjusted, the focus is adjusted in the Far direction. The zooming can also be adjusted by operating the mouse wheel.

Note

● When the mouse is used for dragging and dropping from the control pad area to a position outside this area, the panning, tilting and other operations will not stop.
In a case like this, click the control pad area to stop these operations.

● **Preset**

Home ⌄	When the preset position is selected from the pull-down menu and the Move button is clicked, the camera direction moves to the preset position which was registered ahead of time.
Set	This is used to register the current status in the preset position now selected on the pull-down menu. It does not function if "Home" has been selected on the pull-down menu.
Move	The camera direction moves to the preset position which is now selected on the pull-down menu. The settings that are reproduced at this position are the settings which were established on the "Preset Scope" menu (see page 65). The camera direction moves to the home position if "Home" has been selected on the pull-down menu.

● **Brightness**

Manual	Use this to adjust the image brightness manually.
–	Use this to make the image darker. It does not work during automatic adjustments.
+	Use this to make the image lighter. It does not work during automatic adjustments.
Auto	Use this to adjust the image brightness automatically.

Web setting screen

■ Setup screen

Pressing the Setup button switches the display to this screen on which the unit's settings are established.

● Basic screen
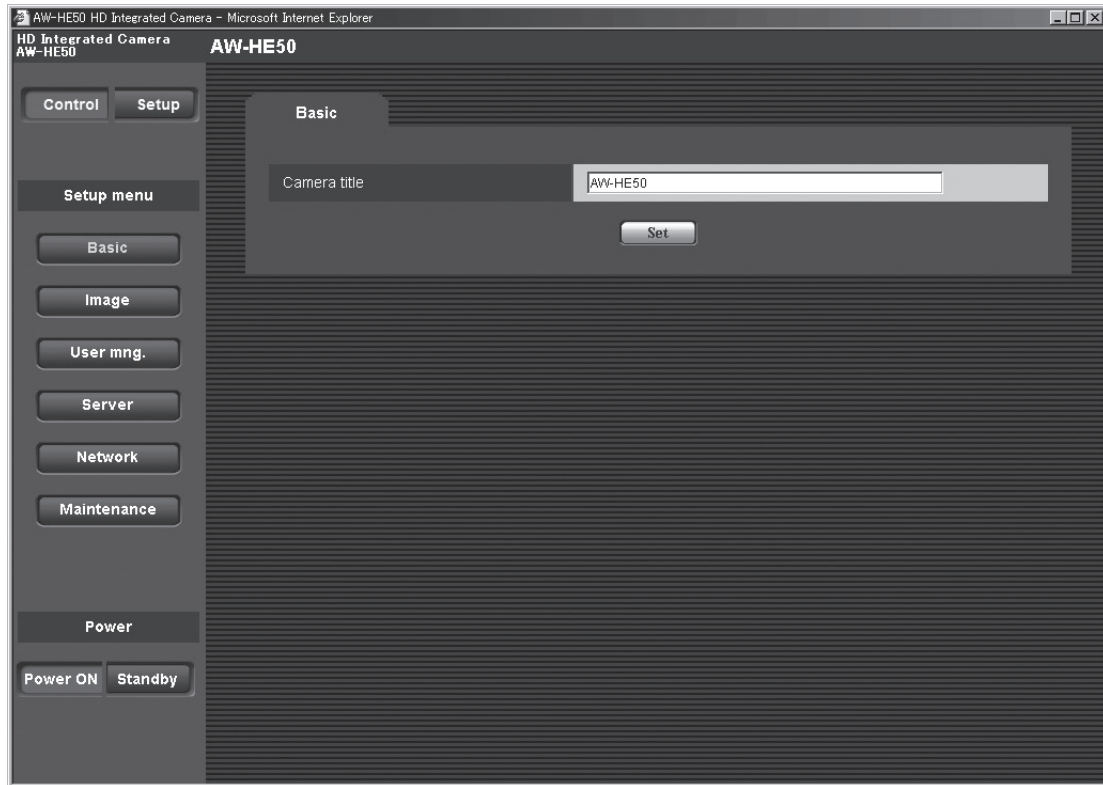
- **Basic button** [Basic]

  When the Basic button is pressed, the Basic screen is displayed in the area on the right.

  Camera title [0 to 20 half-size characters]
  <Initial setting: AW-HE50>
  Input the name of the camera here.
  When the Set button is clicked, the input name appears in the status display area.

Web setting screen

●Image screen

Image
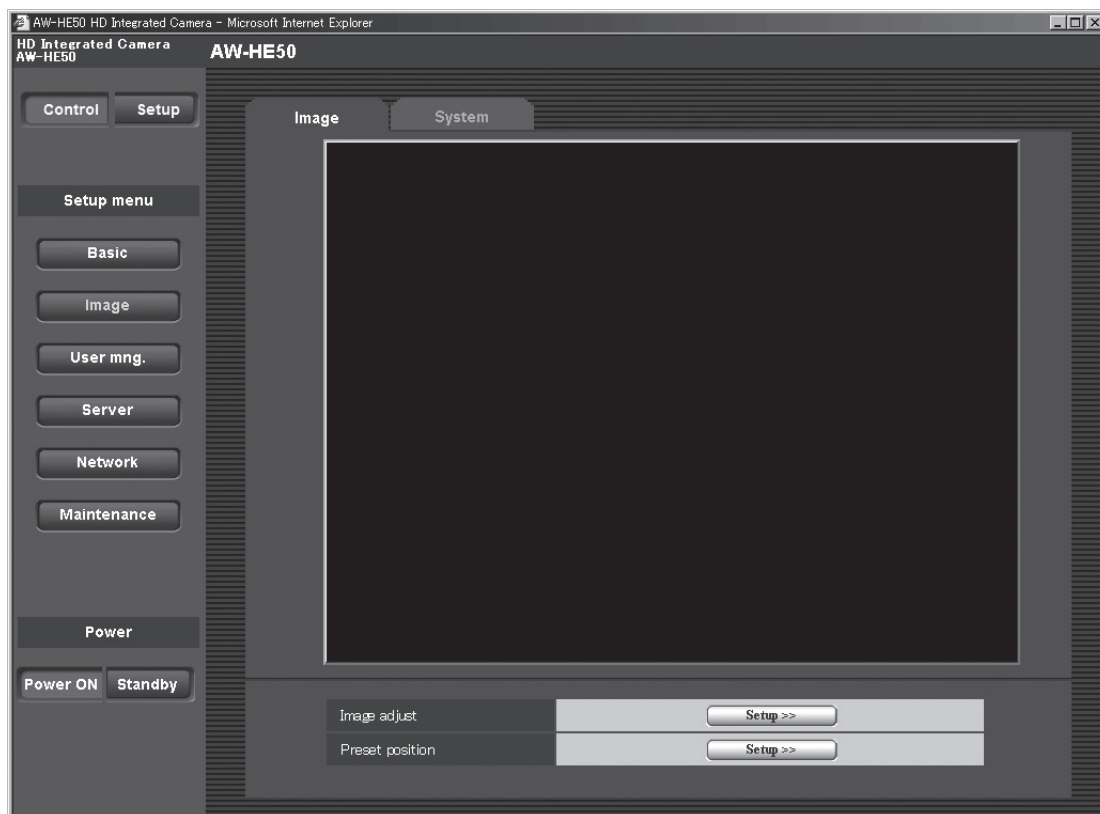
● **Image**

Image adjust
This is used to display the Image Adjust screen.

Preset position
This is used to display the Preset Position setting screen.

Web setting screen

Image adjust screen

When Scene is set to "FullAuto"

When Scene is set to "Manual1 to 3"

Web setting screen

● **Scene**
  [FullAuto, Manual1, Manual2, Manual3]
Selected here is the shooting mode that matches the shooting situation.
Select the mode which best suits the prevailing shooting conditions and the user's preferences.

FullAuto	In this mode, the optimum settings and adjustments for the shooting conditions at hand are automatically established. When "FullAuto" has been selected, the detailed setting and adjustment menus are not displayed.
Manual1 to 3	In these modes, the detailed settings and adjustments are established manually to match the prevailing shooting conditions and the user's preferences. When the Manual1, Manual2 or Manual3 mode has been selected, the detailed setting and adjustment menu for the mode concerned is displayed.

● **Contrast**

Contrast Mode [Auto, Manual]
This item is used to select whether the image brightness (contrast) is to be controlled automatically or manually.

Auto	The iris, shutter speed and frame addition are controlled and the camera brightness is adjusted automatically.
Manual	Operations are performed using the manually set values.

Contrast Level [–5 to +5]
Set here is the contrast level when the image brightness is adjusted.
This item can be set when "Auto" has been selected as the "Contrast Mode" setting.

Shutter Mode [Off, Step, Synchro]
Select for camera shutter speed.
This item can be set when "Manual" has been selected as the "Contrast Mode" setting.
When a higher shutter speed is selected, fast-moving subjects do not become blurred easily but the images will be darker.

Off	The shutter is set to OFF (so that it cannot be tripped).
Step	The step shutter is set (the steps can be changed).
Synchro	The synchro shutter is set (the setting can be changed continuously).

The shutter speeds that can be set are listed below.

When "Step" is selected as the "Shutter Mode"	When "Synchro" is selected as the "Shutter Mode"
1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000	60.24 Hz to max. 646.21 Hz (255 steps)

Frame Mix [Auto, Off, 6dB, 12dB, 18dB]
Select for frame addition (gain-up using sensor storage) amount.
This item can be set when "Off" is selected as the "Shutter Mode" item setting.
When frame addition is performed, it will appear as if the images are missing some frames.

AutoF. Mix Max Gain
[0dB, 6dB, 12dB, 18dB]
When "Auto" for the "Contrast Mode" or "Auto" for the "Frame Mix" is selected, the maximum frame addition amount can be set.
If frame addition is performed at the Auto setting, it will appear as if the images are missing some frames.

Gain [Auto, 0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB]
The image gain is adjusted here.
In locations which are too dark, adjust the gain upward; conversely, in locations which are too bright, adjust it downward.
When "Auto" is set, the light quantity is adjusted automatically.
The noise increases when the gain is increased.

AGC Max Gain [6dB, 12dB, 18dB]
When "Auto" is selected as the "Gain" setting, the maximum gain-up amount can be set.

Web setting screen

● **Picture**

Chroma Level [–3 to +3]
Set here is the color intensity (chroma level) of the images.

AWB
This is used to execute automatic white balance (AWB) to set the white balance.
For details, refer to page 22.

AWB Mode [ATW, AWB A, AWB B]
The white balance mode is selected here.
Select the mode when the coloring is not natural because of the nature of the light source or other factors.
If the white color serving as the reference can be recognized, subjects can be shot with natural coloring.

ATW	In this mode, the white balance is compensated for automatically, even if changes occur in the light source or color temperature, by a process of continuous and automatic adjustment.
AWB A, AWB B	When AWB A or AWB B is selected and the white balance is executed, the adjustment results obtained are stored in the memory selected. When AWB A or AWB B is then selected, the white balance stored in the selected memory can be recalled.

> **Note**
>
> ● When preset settings have been called from the AW-RP655, the AWB mode which was set when the preset data was registered by the AW-RP655 will be called.

Detail [Off, Low, High]
The image detail (image sharpness) is adjusted here.
When "Low" or "High" is selected, the detail is enhanced.

Flesh Tone Mode [Off, Low, High]
Set here is the flesh tone mode for displaying the subjects' skin so that it appears more smoothly and eye-pleasingly.
When "Low" or "High" is selected, the effect is enhanced even more.

Color Matrix [Normal, EBU, NTSC]
This item is used to load the preset color matrix data and compensate for the saturation and color phase.

DNR [Off, Low, High]
Set here is the level of the digital noise reduction effect so that light, noise-free and clear images will be output even at night and in other low-brightness environments.
When "Low" or "High" is selected, even more noise can be eliminated.
However, there is an increased possibility that afterimages may occur.

Pedestal [–10 to +10]
This item is used to adjust the black level (adjust the pedestal) so that the dark parts of the images are easier to see.
These parts become darker when a negative setting is selected and, conversely, lighter when a positive setting is selected.

DRS [Off, Low, High]
Set here is the DRS function which provides just the right amount of compensation when images with significant light/dark differences are displayed.
When "Low" or "High" is selected, the effect is enhanced even more.
This may make noise more perceptible with some scenes.

Gamma Type [Off, Normal, Cinema]
Selected here is the type of gamma curve.
The selected setting takes effect when "Off" is selected as the "DRS" item setting. Normally, the "Normal" setting is used. When "Cinema" is selected, images giving off an atmosphere like movies can be shot.

Gamma Level [Low, Mid, High]
This item is used to adjust the gamma compensation level. The selected setting takes effect when "Off" is selected as the "DRS" item setting or when "Normal" is selected as the "Gamma Type" setting.
When "Low" is set, the images appear sedate and composed. The resulting gamma curve has a gentle gradient in the low-brightness areas, and the contrast is sharper.
Conversely, when "High" is set, the tonal range in the dark area is expanded so that the images take on a lighter tone. The resulting gamma curve has a sharp gradient in the low-brightness areas, and the contrast is softer.

Back Light COMP. [Off, On]
"On" or "Off" is set here for the backlight compensation function.
Under backlight conditions, the function prevents darkening as a result of light striking the backs of subjects, and makes it possible to shoot images in shade or shadow more brightly.
This item can be set when "Auto" has been selected as the "Contrast Mode" setting.
The function takes effect when "Auto" has been selected as the Contrast Mode, Gain or Frame Mix item setting.

[Close]

This is used to close this panel.

Web setting screen

Preset position setting screen

● **Preset**

	This selects the preset position to be operated from the pull-down menu.
Set	This is used to register the current status in the preset position now selected on the pull-down menu. It does not function if "Home" has been selected on the pull-down menu.
Move	The camera direction moves to the preset position which is now selected on the pull-down menu. The settings that are reproduced at this position are the settings which were established on the "Preset Scope" menu (see page 65). The camera direction moves to the home position if "Home" has been selected on the pull-down menu.

● **Zoom**

⊖	Use this to adjust the zoom (magnification) in the Wide direction.
×1.0	Use this to adjust the zoom (magnification) to 1.0×.
⊕	Use this to adjust the zoom (magnification) in the Tele direction.

● **Focus**

Manual	Use this to adjust the focus manually.
Near	Use this to adjust the focus in the Near direction. It does not work during automatic adjustments.
Far	Use this to adjust the focus in the Far direction. It does not work during automatic adjustments.
One Touch AF	When this is pressed while the focus is being adjusted manually, the focus will be temporarily adjusted automatically. It does not work during automatic adjustments.
Auto	Use this to adjust the focus automatically.

Web setting screen

● **Brightness**

Manual	Use this to adjust the image brightness manually.
−	Use this to make the image darker. It does not work during automatic adjustments.
+	Use this to make the image lighter. It does not work during automatic adjustments.
Auto	Use this to adjust the image brightness automatically.

● **Control pad and its buttons**

	To adjust the image in the horizontal or vertical direction (panning or tilting), left-click the pad and the buttons. The more the outside of the pad is clicked, the faster the camera operates. Adjustment is also possible by dragging the mouse. Right-click the pad to initiate zooming and focusing. When the top half of the pad is clicked in the up or down direction, the zoom (magnification) is adjusted in the Tele direction; conversely, when the bottom half of the pad is adjusted, the zoom is adjusted in the Wide direction. When the left half of the pad is clicked in the left or right direction, the focus is adjusted in the Near direction; conversely when the right half of the pad is adjusted, the focus is adjusted in the Far direction. The zooming can also be adjusted by operating the mouse wheel.

Note

● When the mouse is used for dragging and dropping from the control pad area to a position outside this area, the panning, tilting and other operations will not stop.
In a case like this, click the control pad area to stop these operations.

● **Limitation Setting**

This establishes the up, down, left and right limit settings of the pan-tilt head.
First, move the pan-tilt head to the position where the limit is to be set, and press the corresponding button below to set the direction (up, down, left or right) in which the limit is to be set.
After each setting has been selected, press the Set button to enter the setting.

|	
Tilt Up	Use this to save the current position as the upward limit.
Tilt Down	Use this to save the current position as the downward limit.
Pan Left	Use this to save the current position as the leftward limit.
Pan Right	Use this to save the current position as the rightward limit.
Set/Reset	Use this to enable or disable the limit setting in each direction.

| Close |

This is used to close this panel.

Web setting screen

System

This menu has items that relate to the genlock phase adjustment and camera's output image settings.
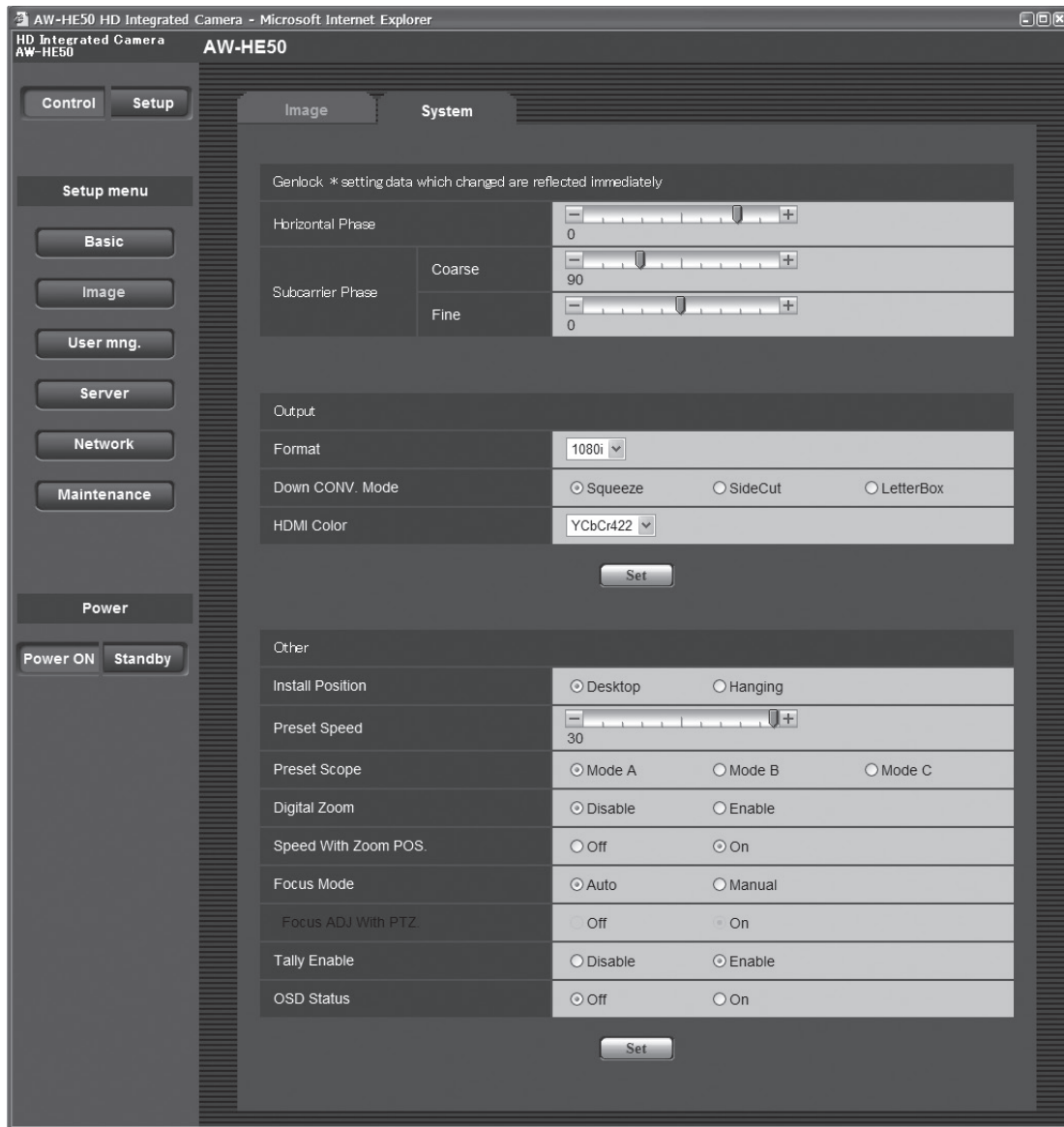
- ● **Genlock (AW-HE50S only)**
  This item's setting is reflected immediately.

Horizontal Phase [–206 to +49]
This is used to adjust the horizontal phase during genlock.

**Subcarrier Phase Coarse
[0° to 315°]**
This is used to adjust coarsely the color phase during genlock.
This setting is valid for the VBS signal output.

Subcarrier Phase Fine [–127 to +127]
This is used to adjust finely the color phase during genlock.
This setting is valid for the VBS signal output.

Web setting screen

● **Output**
This item's setting is reflected when the Set button is pressed.
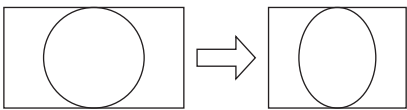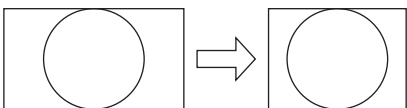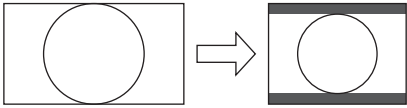
Format [1080i, 720p, 480i]
The video format is changed on this screen.

Down CONV. Mode
[Squeeze, SideCut, LetterBox]
The down-conversion mode is selected here.

Squeeze	When the 4:3 aspect ratio has been set for the monitor screen, the images are squeezed horizontally and extended vertically changing the view of the angle.
SideCut	With the vertical height serving as the reference, the parts which extend beyond this at the two sides are cropped changing the view of the angle.
LetterBox	With the horizontal width serving as the reference, black bands are added at the top and bottom changing the view of the angle.

● **When output is selected for the color bar, the mode is fixed to Squeeze.**
If "SideCut" or "LetterBox" has been selected, the HDMI output will not appear for a few seconds when the color bar display is set to ON or OFF.

HDMI Color (AW-HE50H only)
[RGB-NOR, RGB-ENH, YCbCr422, YCbCr444]
Set here is the HDMI color output.
● When an HDMI monitor is used, use "YCbCr422" under normal circumstances.
● In cases where, for instance, HDMI (RGB) signals are converted and output to a DVI monitor, the settings required will differ depending on the color gradation supported by the monitor.

RGB-NOR	The RGB output signals are output in the 16 to 235 range.
RGB-ENH	The RGB output signals are output in the 0 to 255 range.

● If the black parts of the images appear overexposed when "RGB-NOR" has been selected, use the "RGB-ENH" setting instead.
● Conversely, if the images are displayed with a loss of dark detail when "RGB-ENH" has been selected, use the "RGB-NOR" setting instead.

Note
● If an HDMI Color setting which is not supported by the monitor has been specified, the HDMI Color setting may be changed automatically.
(The menu display will remain unchanged.)

With the AW-HE50S, this item cannot be selected.

Web setting screen

● **Other**
This item's setting is reflected when the Set button is pressed.

Install Position [Desktop, Hanging]
"Desktop" or "Hanging" is selected here as the method used to install the unit.

Desktop	Stand-alone installation
Hanging	Suspended installation

● When "Hanging" has been selected, the top, bottom, left and right of the images will be reversed, and up/down/left/right control for panning and tilting will also be reversed.

Preset Speed [1 to 30]
There are 30 preset pan-tilt operation speeds of when regenerating the camera direction and other information which are registered in the preset memory.

> **Notes**
>
> ● If a high value is selected for the Preset Speed setting, the image on the screen may shake when operation stops.
> ● When connecting the unit to the AW-RP655 for use, the "DIAGONAL SPEED (P/T SETTING)" setting of the AW-RP655 takes effect.
> To change the Preset Speed, change the AW-RP655 setting.

Preset Scope [Mode A, Mode B, Mode C]
Selected here are the setting items to be recalled when the contents of the preset memory are regenerated.

Mode A	Pan, Tilt, Zoom (including digital zoom), Focus, Iris, Gain, White-BAL
Mode B	Pan, Tilt, Zoom (including digital zoom), Focus, Iris
Mode C	Pan, Tilt, Zoom (including digital zoom), Focus

Digital Zoom [Disable, Enable]
"Enable" or "Disable" is set here for the digital zoom function.
If zooming is performed toward the Tele end beyond the maximum position when "Enable" has been selected, the digital zoom can be operated continuously. Zooming will stop temporarily at the position where the optical zoom and digital zoom are switched so after it has stopped at this position, proceed with zooming again.
When the setting is changed to "Disable" while already in the digital zoom region, the zoom will automatically move to the maximum position of the optical zoom.

Speed With Zoom POS. [Off, On]
"On" or "Off" is set here for the function used to adjust the camera direction's adjustment speed in conjunction with the zoom magnification.
When "On" is set, the panning and tilting operations will become slower in the zoom status.
This function has no effect during preset operations.

Focus Mode [Auto, Manual]
"Auto" or "Manual" is set here for the focusing function.

Auto	The subjects are always brought into focus automatically.
Manual	The focus is operated manually.

Focus ADJ With PTZ. [Off, On]
"On" or "Off" is set here for the function which compensates for out-of-focusing when it occurs during panning, tilting or zooming operations at the manual focus setting.
When "Off" is set, adjust the focus as required after zooming or set the focus to the auto mode. This item can be selected only when "Manual" has been selected as the "Focus Mode" setting.

Tally Enable [Disable, Enable]
"Enable" or "Disable" is set here for the function which turns on or turns off the tally lamp using the tally control signal.

OSD Status [Off, On]
"On" or "Off" is set here for the status display which appears during AWB operations.

Web setting screen

● User mng.

The authorization of those users who can access the camera from a PC or AW-RP50 and those IP addresses, from which the camera can be accessed, is registered on this screen in order to restrict any other access.
The screen itself consists of two tabs, "User auth." and "Host auth".

User auth. screen
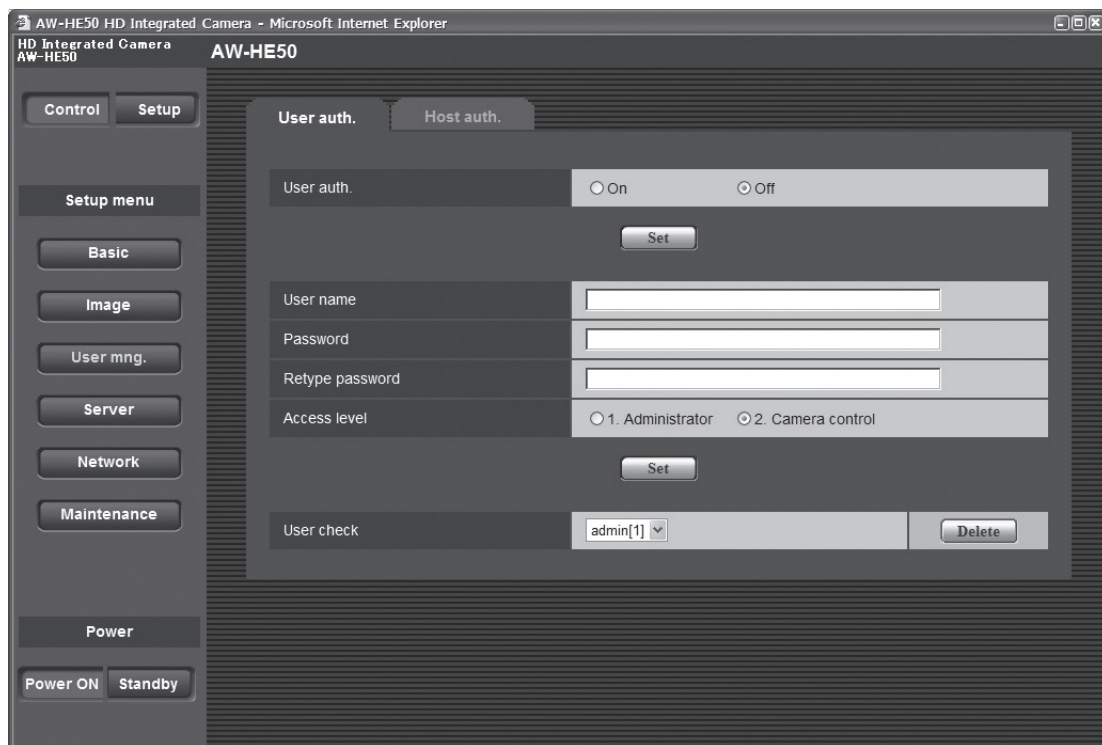
● **User auth.**
　　<Initial setting: Off>
　　User authorization is set to "On" or "Off" here.
　　Enter the setting using the Set button.

● **User name [1 to 32 half-size characters]**
　　<Initial setting: blank>
　　The user name is input here.
　　Enter the setting using the Set button.

● **Password**
● **Retype password [4 to 32 half-size characters]**
　　<Initial setting: blank>
　　The password is input here.
　　Enter the setting using the Set button.

● **Access level**
　　<Initial setting: 2. Camera control>
　　Select one of the following settings as the user access level.
　　Enter the setting using the Set button.

1. Administrator	This access level allows the user to perform all the unit's operations.
2. Camera control	This access level allows only Control screen operations to be performed.

● **User check**
　　A pull-down menu can be opened here, and the registered users checked.
　　A registered user is indicated in the form of "Registered user name [Access level]".
　　(Example: admin[1])
　　To delete a registered user, select the user to be deleted, and click the Delete button on the right.

Web setting screen
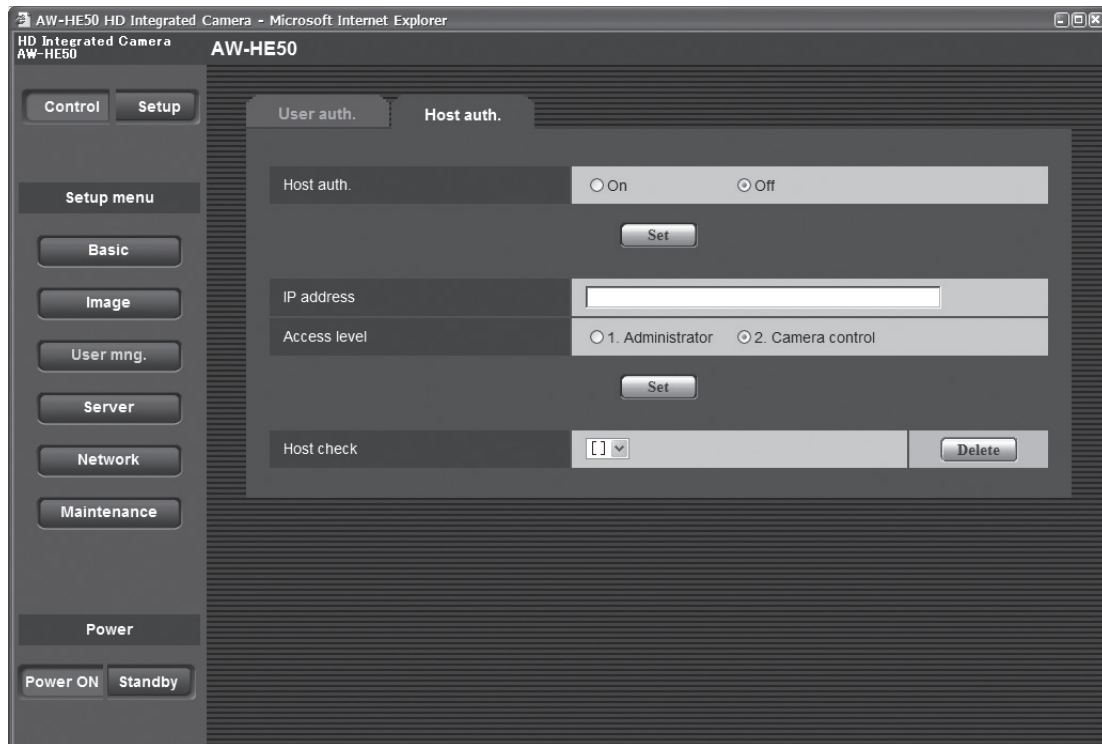
● **Host auth.**
<Initial setting: Off>
Host authorization is set to "On" or "Off" here.

● **IP address**
<Initial setting: blank>
The IP address of the PC from which access to the camera is allowed is input here.
The host name cannot be input as the IP address.

✎ Memo ✎

● When the "IP address/subnet mask length" is input, the PCs which are allowed to access the camera can be restricted on a subnet by subnet basis.
If, for instance, "192.168.0.1/24" has been input and the "2. Camera control" setting has been selected as the access level setting, the PCs from "192.168.0.0" to "192.168.0.255" will be able to access the camera at the "2. Camera control" access level.
● When an already registered IP address is input and the Set button is clicked, the host information will be overwritten.

● **Access level**
<Initial setting: 2. Camera control>
Select one of the following settings as the host access level.

1. Administrator
2. Camera control

For details on the access level, refer to page 66.

● **Host check**
A pull-down menu can be opened here, and the IP addresses of the registered hosts checked.
A host is indicated in the form of "Registered IP address [Access level]".
(Example: 192.168.0.21 [1])
To delete a registered host (IP address), select the host to be deleted, and click the Delete button on the right.

Web setting screen

● Server

This screen has items that relate to the NTP server addresses, port numbers and other NTP server settings.

NTP screen
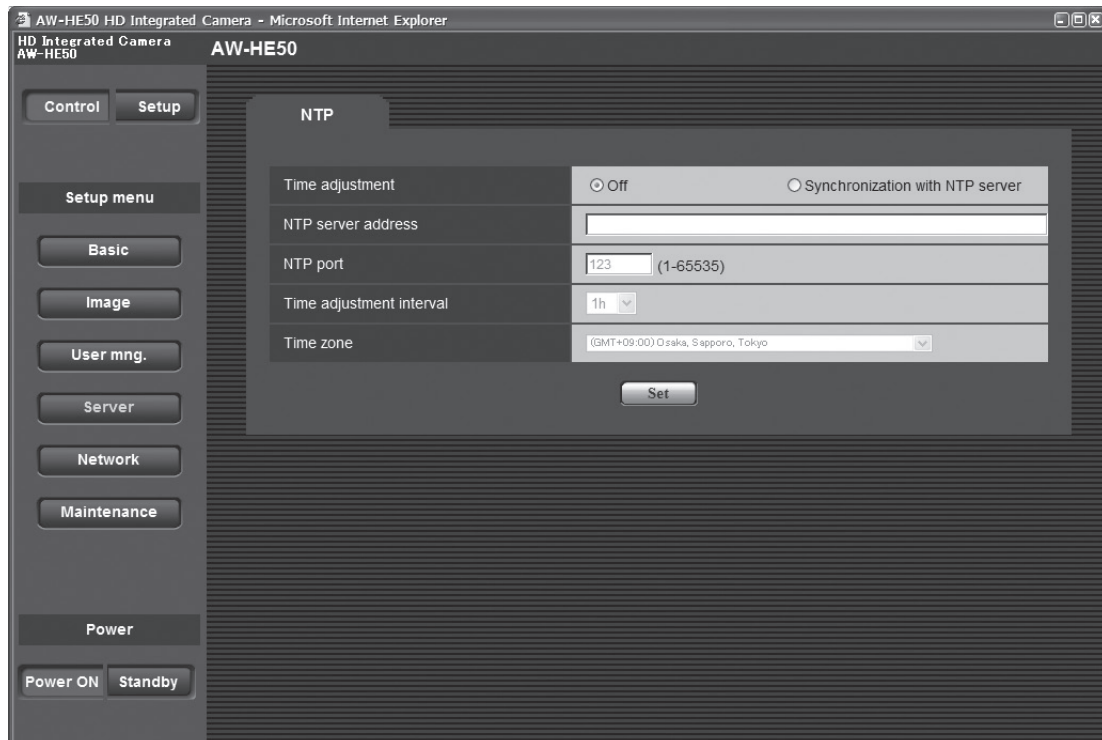
● **Time adjustment**
<Initial setting: Off>
Select one of the following settings as the time adjustment method.
The time is adjusted by the method selected here and used as the unit's standard time.

Off	The time is counted from 0:00 on January 1, 1990 as the unit's startup time.
Synchronization with NTP server	The time automatically adjusted in synchronization with the NTP server is used as the unit's standard time.

● **NTP server address**
[1 to 63 half-size characters]
<Initial setting: blank>
The host name or IP address of the NTP server is input here.

> **Note**
> ● To input the "NTP server address" host name, the DNS setting must be selected on the Network screen (see page 70) of the Network settings.

● **NTP port [1 to 65535]**
<Initial setting: 123>
The port number of the NTP server is input here.

● **Time adjustment interval**
<Initial setting: 1h>
The interval (1 to 24 hours in 1-hour increments) for acquiring the time from the NTP server and updating the time is selected here.

● **Time zone**
<Initial setting: (GMT -08:00) Pacific Time (US & Canada), Tijuana>
Select the time zone that corresponds with the region in which the unit is going to be used.

Web setting screen

●Network

This screen has items that relate to the network settings, DDNS (Dynamic DNS) and SNMP (Simple Network Management Protocol).
It consists of the three tabs of "Network", "DDNS" and "SNMP".

Network screen
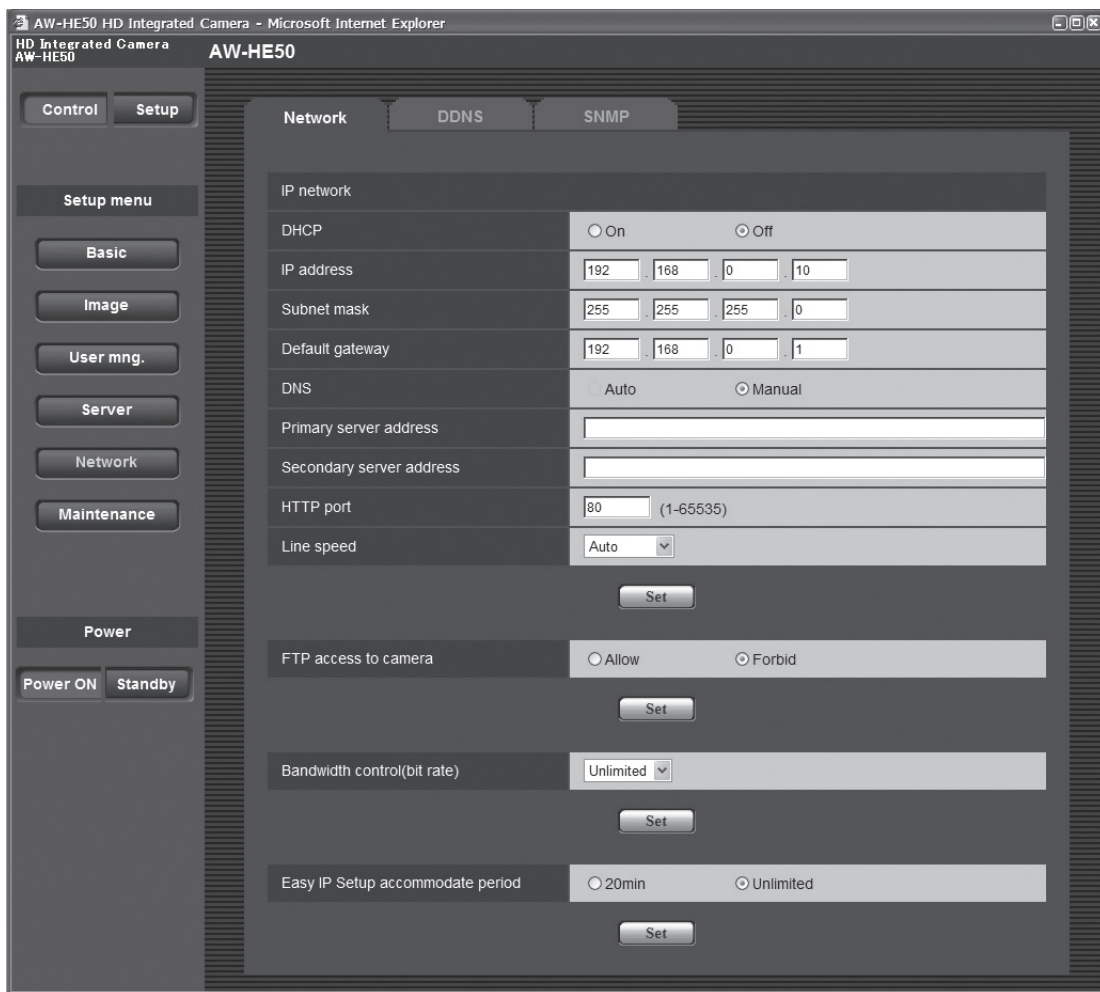
● **IP network**

DHCP
<Initial setting: Off>
Whether the DHCP function is to be used is set by selecting "On" or "Off" here. Set the DHCP server in such a way that the same IP address cannot be used by PCs without the DHCP function or by other network cameras. For details on the server settings, consult your network administrator.

IP address
<Initial setting: 192.168.0.10>
Input the unit's IP address here when the DHCP function is not going to be used. Input an address that will not duplicate an existing IP address which has been set for a PC or another network camera.

✐ **Memo** ✐

● Multiple IP addresses cannot be used even when the DHCP function is used.
   For details on the DHCP server settings, consult your network administrator.

Web setting screen

Subnet mask
<Initial setting: 255.255.255.0>
Input the unit's subnet mask here if the DHCP function is not going to be used.

Default gateway
<Initial setting: 192.168.0.1>
Input the unit's default gateway if the DHCP function is not going to be used.

✐ Memo ✐

● Multiple IP addresses cannot be used for the default gateway even when the DHCP function is used.
For details on the DHCP server settings, consult your network administrator.

DNS
<Initial setting: Manual>
Whether the DNS server address is to be acquired automatically (Auto) or manually (Manual) is input here.
If "Manual" has been selected, the DNS settings must be established.
If "Auto" is selected when the DHCP function is going to be used, the DNS server address is acquired automatically.
For further details, consult your system administrator.

Primary server address
Secondary server address
<Initial setting: blank>
Input the IP address of the DNS server if the "Manual" setting has been selected for "DNS".
For details on the IP address of the DNS server, consult your system administrator.

HTTP port [1 to 65535]
<Initial setting: 80>
The port number is allocated here separately.
The following port numbers are used by the unit therefore cannot be used.

Port numbers already used
20, 21, 23, 25, 42, 53, 67, 68, 69, 110, 123, 161, 162, 554, 995, 10669, 10670, 59000 to 59999, 60000 to 61000

Line speed
<Initial setting: Auto>
Select one of the following data line speeds.
Normally, it is recommended that the "Auto" default setting be used.

Auto	The line speed is set automatically.
100 M-Full	The line speed is set to 100 Mbps full duplex.
100 M-Half	The line speed is set to 100 Mbps half duplex.
10 M-Full	The line speed is set to 10 Mbps full duplex.
10 M-Half	The line speed is set to 10 Mbps half duplex.

FTP access to camera
<Initial setting: Forbid>
Whether FTP access to the camera is to be allowed is set by selecting "Allow" or "Forbid".

Bandwidth control(bit rate)
<Initial setting: Unlimited>
Select one of the following data bandwidth settings.

Unlimited	384 kbps	2048 kbps
64 kbps	512 kbps	4096 kbps
128 kbps	768 kbps	8192 kbps
256 kbps	1024 kbps	

Easy IP Setup accommodate period
<Initial setting: Unlimited>
Select "20min" or "Unlimited" as the time for enabling the operation of the network settings from the Easy IP Setup Software.

| 20min	The setting operations from the Easy IP Setup Software are enabled for 20 minutes after the camera has started operating.
Unlimited	The setting operations from the Easy IP Setup Software are enabled at all times.

Web setting screen

DDNS screen

Use DHCP to acquire the global IP address.
The DDNS function must be set in order to access the unit over the Internet.
When using the DDNS function, access the unit using the "address of host name.nmdns.net" which was registered in the DDNS server. To use the DDNS function, a connection with a dedicated DDNS server is required.
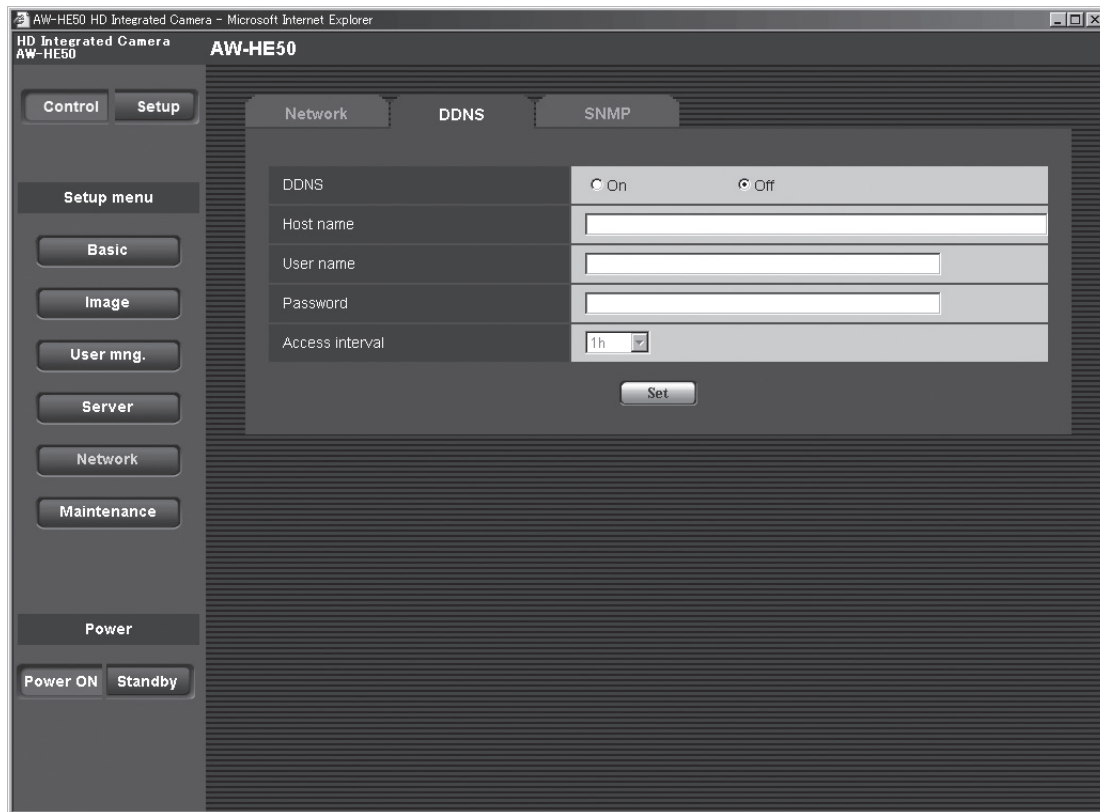

● **DDNS**
   <Initial setting: Off>
   Whether the DDNS function is to be used is selected by setting "On" or "Off".

● **Host name [1 to 64 half-size characters]**
   <Initial setting: blank>
   Input here the host name to be used.

● **User name [1 to 32 half-size characters]**
   <Initial setting: blank>
   Input here the user name (log-in name) for accessing the DDNS server.

● **Password [0 to 32 half-size characters]**
   <Initial setting: blank>
   Input here the password for accessing the DDNS server.

● **Access interval**
   <Initial setting: 1h>
   Select one of the settings below to be used as the access interval in which the IP address and host name are checked with the DDNS server.

1min	1 minute
10min	10 minutes
30min	30 minutes
1h	1 hour
6h	6 hours
24h	24 hours

Web setting screen

SNMP screen

The settings related to the SNMP function are selected on this screen.
When the SNMP manager is used for the connection, the unit's statuses can be checked.
When the SNMP function is to be used, consult with your network administrator.
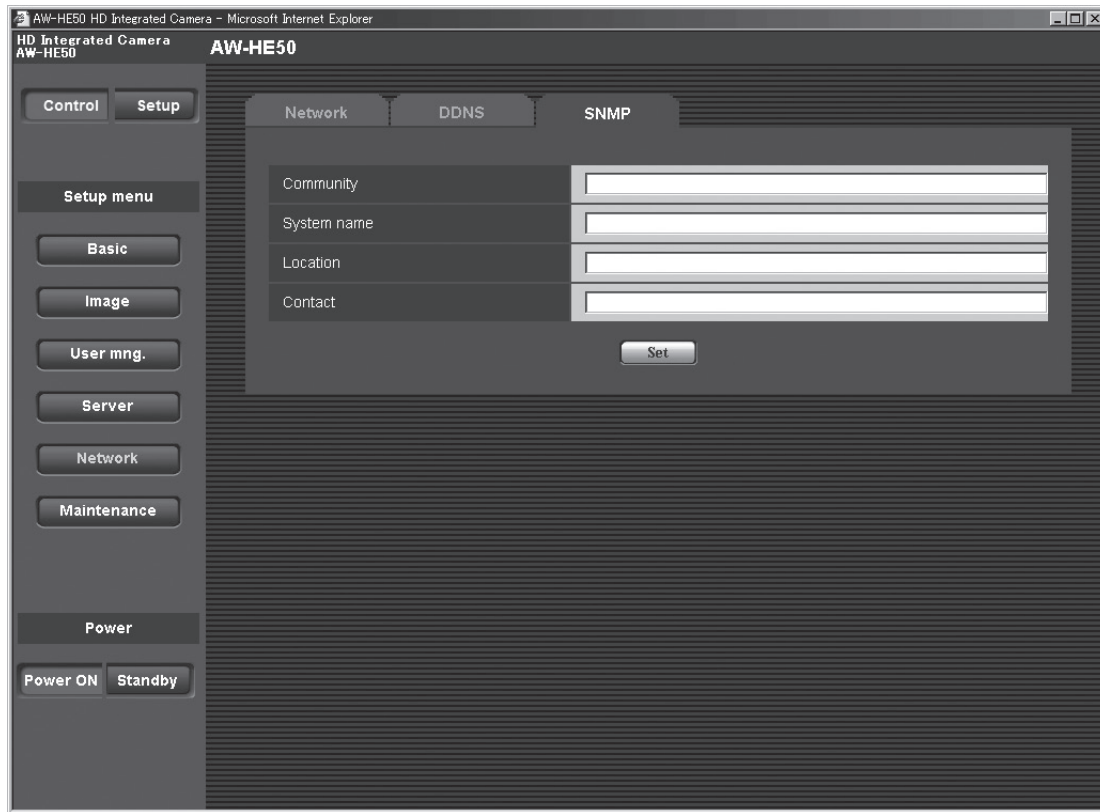
● **Community [0 to 32 half-size characters]**
  <Initial setting: blank>
  Input here the community name which is to be monitored.

  ┌─ **Note** ─────────────────────────┐
  │   │
  │ ● When using the SNMP function, be absolutely sure │
  │   to input the community name.   │
  │   This function cannot be used if the community │
  │   name field is left blank.   │
  │   │
  └───────────────────────────────────┘

● **System name [0 to 32 half-size characters]**
  <Initial setting: blank>
  Input here the system name for controlling the unit using
  the SNMP function.

● **Location [0 to 32 half-size characters]**
  <Initial setting: blank>
  Input here the location where the unit has been installed.

● **Contact [0 to 255 half-size characters]**
  <Initial setting: blank>
  Input here the email address or telephone number of the
  administrator.

Web setting screen

●Maintenance

Among the various maintenance operations performed on this screen are system log checks, system version upgrading and initialization of the unit.
The screen itself consists of five tabs: "System log", "Upgrade", "Default reset", "Back up" and "Other".

System log screen

A maximum of a hundred system logs can be stored in the unit's internal memory.
When this maximum number has been exceeded, the old logs are overwritten successively by the new logs.
The logs are cleared when the unit's power is turned off.
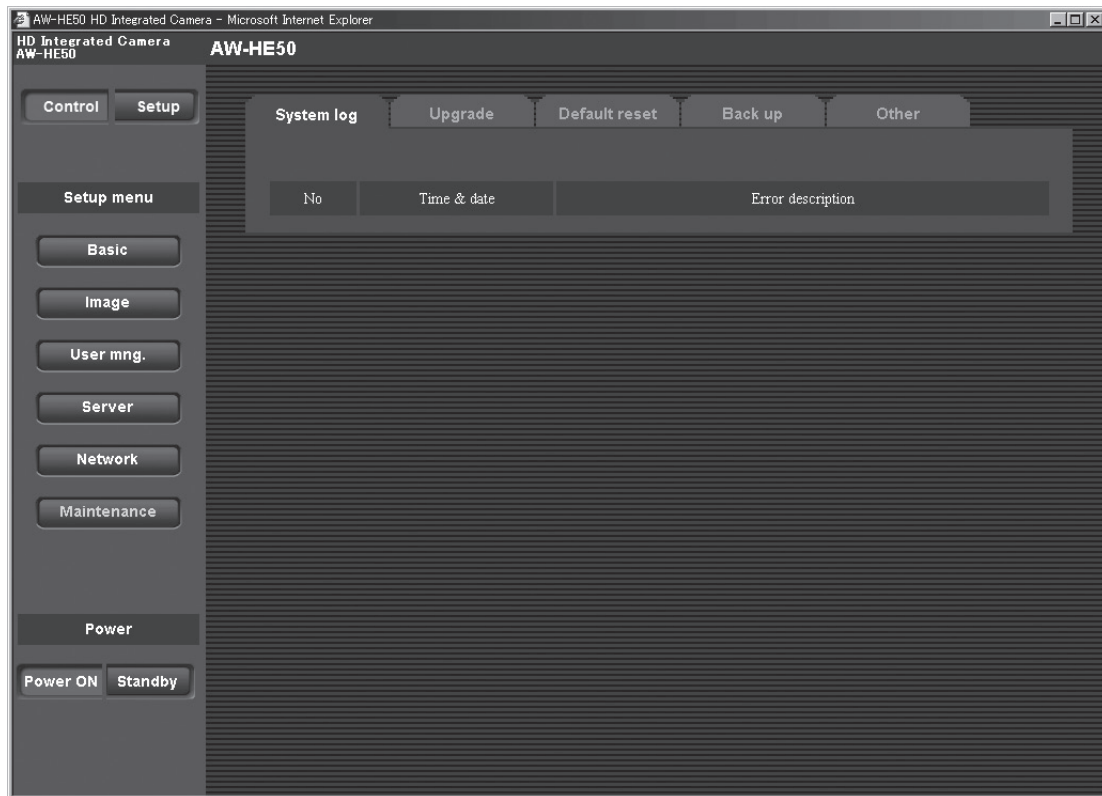
● **No**
The running numbers of the system logs are displayed here.

● **Time & date**
The times and dates when the logs were generated are displayed here.
The 24-hour system is used to display this information.

● **Error description**
Details of the error logs are displayed here.
For further details on the system logs, refer to page 79.

Web setting screen

Upgrade screen

On this screen, it is possible to check the unit's software versions and upgrade them to the latest versions.
For details on the software used for version upgrading, consult your dealer.

The "Model no.", "MAC address", "Serial no.", "Firmware version" and other information about the unit is displayed.
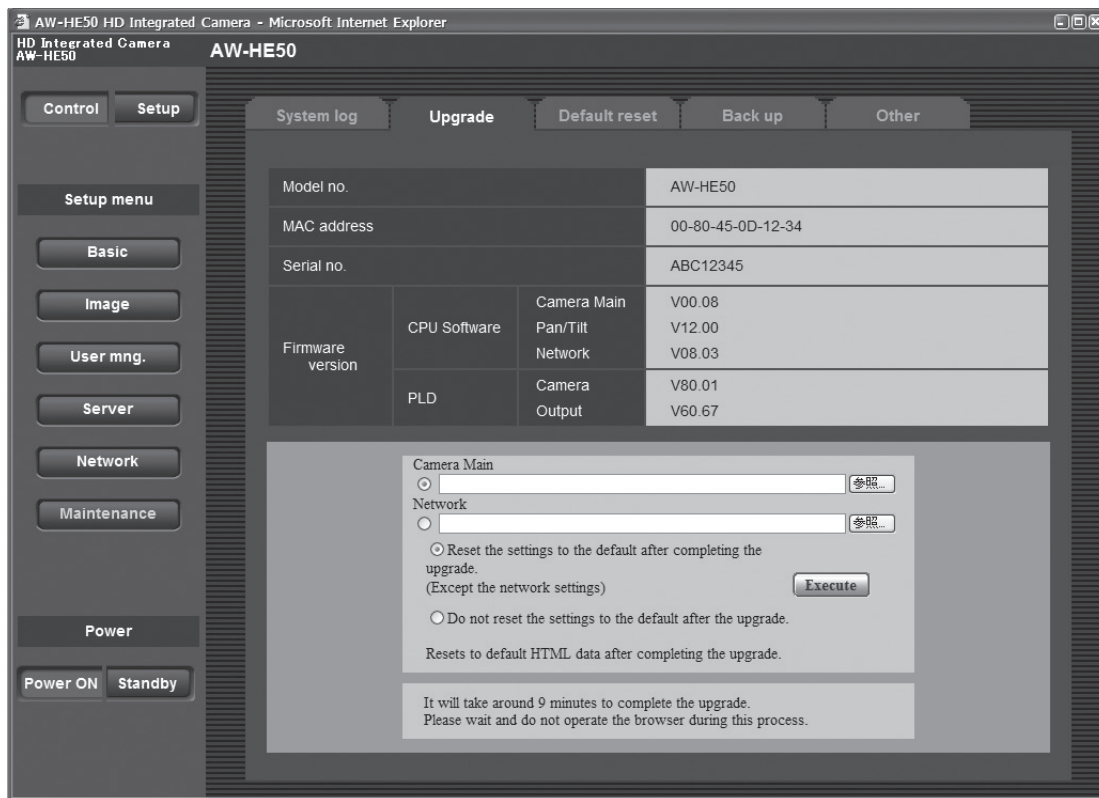
1 **After consulting with your dealer, download the latest software to the hard disk of your personal computer.**

> **Note**
> ● No spaces or full-size characters can be used for the directory in which the software will be stored.

2 **Select the software to be upgraded by clicking the [Camera Main] or [Network] radio button.**

3 **Click the Browse button, and specify the downloaded software.**

4 **Click the radio button underneath, and after the software version has been upgraded, select whether to initialize the data.**

> **✎ Memo ✎**
> ● Judge whether or not to initialize the data after reading through the Readme file which accompanies the software.

5 **Click the Execute button.**

The software version is upgraded, and the screen on which to check data initialization is displayed.
If the data is not going to be initialized after the version has been upgraded, the check screen is not displayed.
After upgrading the software version, be absolutely sure to delete the temporary Internet files.

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Web setting screen

Notes

- Use the personal computer on the same subnet as the camera to upgrade the software version.

- Before using the version upgrading software, be absolutely sure to check the precautions to be observed with your dealer, and follow the dealer's instructions.

- Use the following files specified by Panasonic as the software used for version upgrading.

Camera Main	bin files
Network	img files

- Be absolutely sure to write the filenames as below (see *) for the files of the software used for version upgrading.

Camera Main	he50_cameramain_xxxxx.bin*
Network	he50_network_xxxxx.img*

  *: Enter the software version in the "xxxxx" part.

- Do not turn off the unit's power while a software version is being upgraded.

- While a software version is being upgraded, do not attempt to execute any other operations until the version has been upgraded.

- Even when "Reset the settings to the defaults after completing the upgrade" has been selected, the network-related data listed below will not be initialized.
  - DHCP On/Off
  - IP address
  - Subnet mask
  - Default gateway
  - HTTP port
  - Line speed
  - Bandwidth control (bit rate)

Web setting screen

Default reset screen

The unit's setting data and HTML files are initialized and the unit is restarted on this screen.
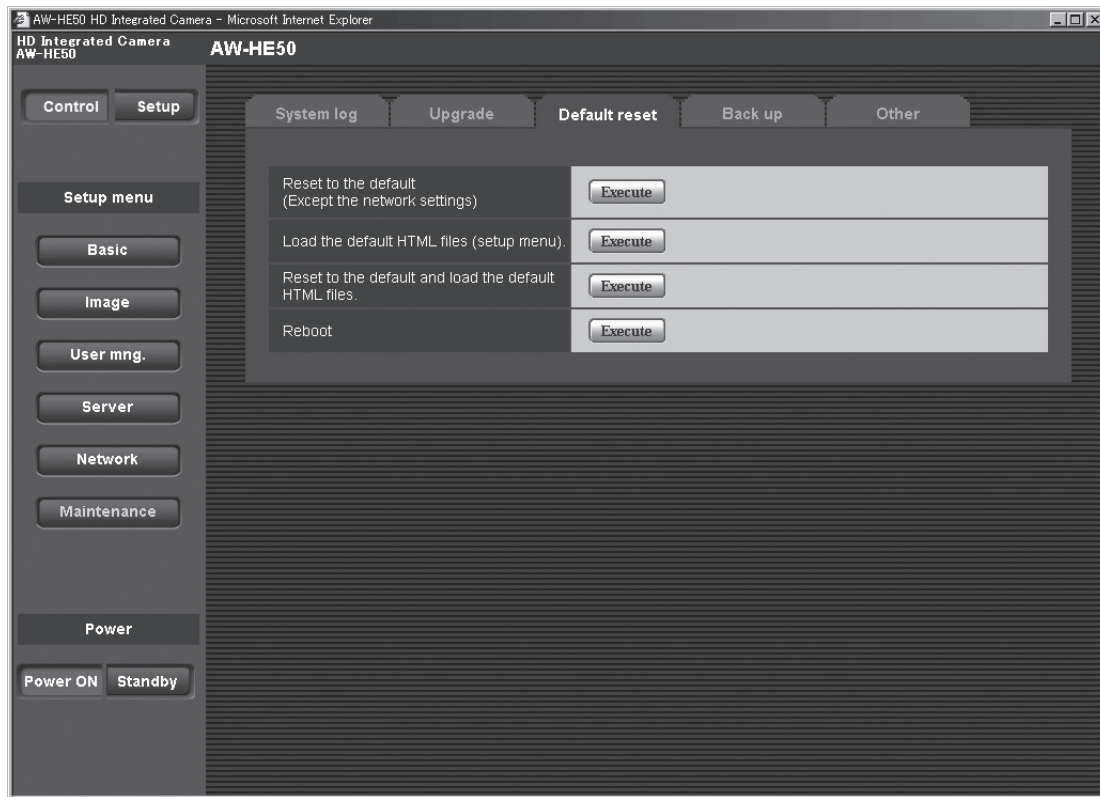
● **Reset to the default**
  (Except the network settings)
  When the Execute button is clicked, the unit's settings are returned to their defaults.
  However, the network-related settings are not initialized. (See page 75)
  When the initialization operation is started, no operations can be undertaken for about 2 minutes.

● **Load the default HTML files (setup menu)**
  When the Execute button is clicked, the HTML files are returned to their defaults.
  When the initialization operation is started, no operations can be undertaken for about 2 minutes.

● **Reset to the default and load the default HTML files**
  When the Execute button is clicked, the unit's settings and HTML files are returned to their defaults.
  However, the network-related settings are not initialized. (See page 75)
  When the initialization operation is started, no operations can be undertaken for about 2 minutes.

● **Reboot**
  When the Execute button is clicked, the unit is rebooted. After the unit has been rebooted, no operations can be undertaken for about 2 minutes as is the case when the unit's power is turned on.

Web setting screen

Back up screen

On this screen, the unit's settings can be saved to a personal computer or settings saved in a personal computer can be loaded into the unit for use.
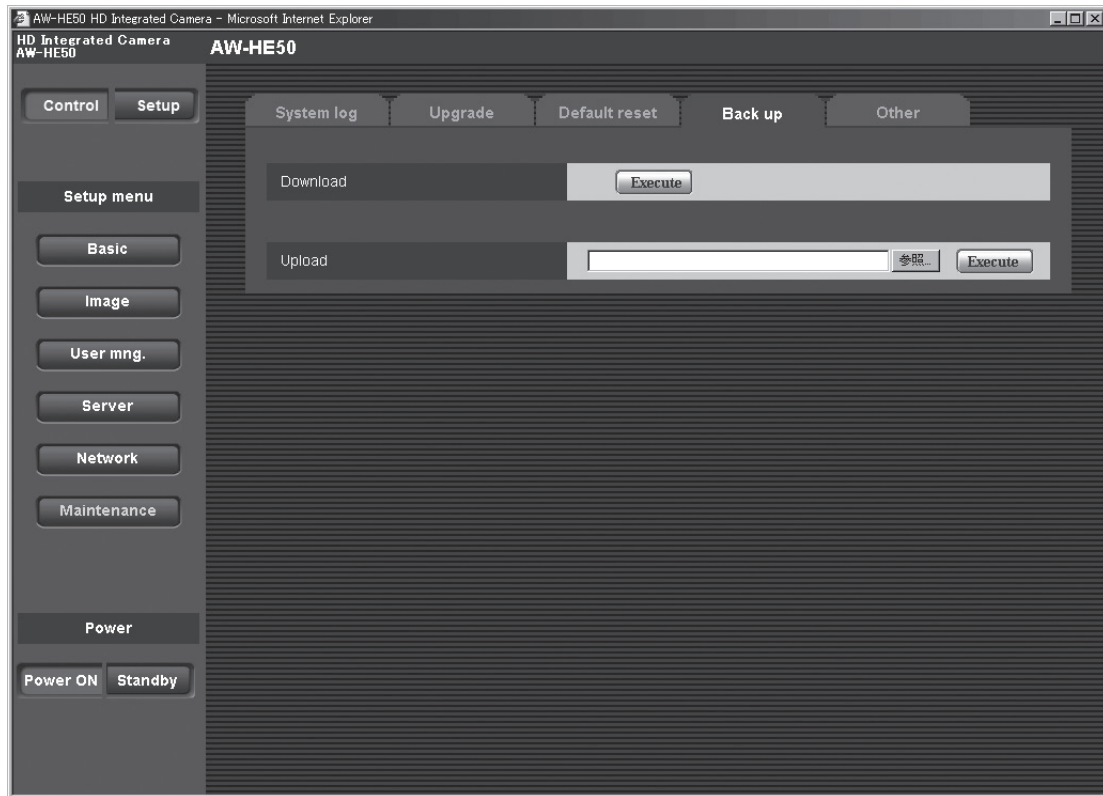
● **Download**

The unit's settings are saved in the personal computer.
After displaying the save destination dialog box using the Execute button, specify the save destination folder.

Listed below are the settings to be saved.

• Scene FullAuto settings
• Scene Manual1 settings
• Scene Manual2 settings
• Scene Manual3 settings
• System settings
• Preset settings

● **Upload**

The unit's setting files, which were saved in the personal computer by the download function, are uploaded.
Click the Browse button to display the dialog box, and specify the saved file.

Notes

● Use the files downloaded by the unit as the data to be used for uploading.
Do not change the extension (.dat) of the files which have been downloaded.
● Do not turn off the unit's power while downloading or uploading is underway.
● Do not attempt to perform any operations while downloading or uploading is underway. Instead, wait until the downloading or uploading is completed.

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Web setting screen

Other screen

The images output from the unit can be switched between camera images and color bars on this screen.
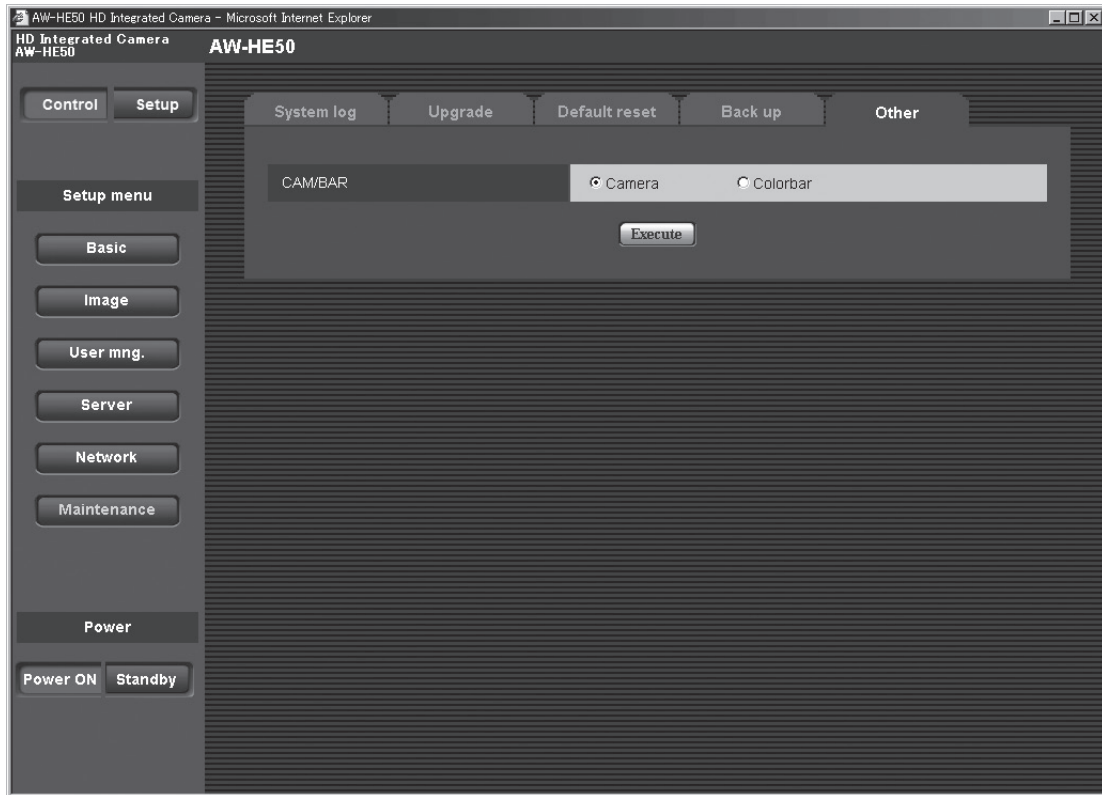
● **CAM/BAR**

Camera	The unit's output images are switched to "camera images".
Colorbar	The unit's output images are switched to "color bar".

System log displays

DDNS-related error displays

Category	Display	Description of error
Connection error	No response from the DDNS server.	● A mistake may have been made in specifying the DDNS server. Check the DDNS settings again. ● The DDNS server may be down. Consult your network administrator.
	User name or password isn't correct.	● The user name or password may be incorrect. Check the DDNS settings again.
	IP address update failed.	● An IP address update error has occurred in the DDNS server. Consult your network administrator.
Internal error	Undefined error.	● A problem has occurred in the DDNS function. Check the DDNS settings again.

NTP-related error displays

Category	Display	Description of error
Connection error	No response from the NTP server.	● The IP address of the server may be incorrect. Check the server's IP address settings again. ● The NTP server may be down. Consult your server administrator.
Internal error	Undefined error.	● A problem has occurred in the NTP function. Check the NTP settings again.
Successful NTP-based time synchronization	NTP update succeeded.	● The time has been updated successfully.

Login-related displays

Category	Display	Description of error
Login	(User name or IP address)	● If user authorization has been set, the name of the user who has logged onto the unit is displayed. ● If host authorization has been set, the IP address of the user who has logged onto the unit is displayed.

Limiters

This unit comes with settings (referred to as "limiters") that restrict the panning and tilting movement ranges.
Depending on where the unit has been installed, a subject which the user does not wish to be shot may be present in the movement ranges.
In a case like this, the unit's shooting range can be limited by setting the limiters at the positions just before the subject which the user does not wish to be shot.

The positions of four limiters — namely, the upper, lower, left-most and right-most limits of the travel range — can be set.
Once they have been set, the positions will not be lost even after the power has been turned off.

The limiters can be set or released both by the wireless remote control and controller or web setting screen.
Whatever was set or released last takes precedence.
For the controller operations, refer to the Operating Instructions of the controller.

The settings of the limiters using the wireless remote control will be described here.
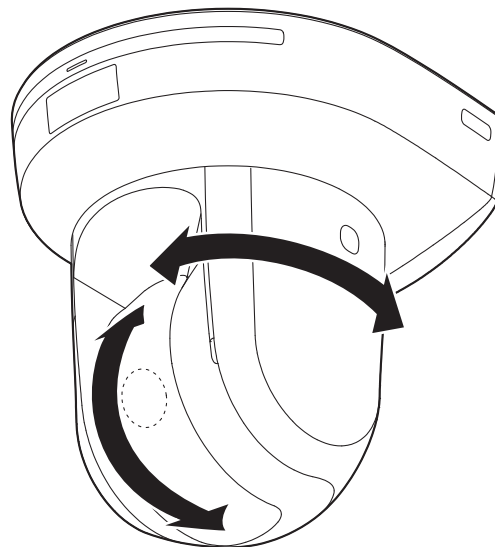
Setting/releasing the limiters

■ Basic limiter operations

1 **Press the [MENU] button.**

Tap the button (rather than pressing it). When it is pressed for 2 seconds, a menu will appear.
If this happens, press the [MENU] button again for 2 seconds to clear the menu.
Then start again from step **1**.

2 **Press the [▲], [▼], [◄] or [►] button for 2 seconds while holding down the [PRESET] button.**

The limiter for the upper limit, lower limit, left limit or right limit is set (or released) using these direction buttons, respectively.
The tally lamp will blink at this time.
When a limiter is set, it blinks once; when a limiter is released, it blinks twice.
If any other button was operated between steps **1** and **2**, start again from step **1**.

■ Setting the limiters

The limiter positions can be set by following the steps below. When the position is set, the tally lamp blinks once.

1 **Press one of the [CAM1] to [CAM4] buttons to select the unit.**

● **Setting the upper limit position of the movement range**

Press the [▲] or [▼] button of the wireless remote control to turn the unit as far as the position which will serve as the upper limit.
Next, perform the steps in "Basic limiter operations". (Press the [MENU] button quickly and then press the [▲] button for 2 seconds while holding down the [PRESET] button.)

● **Setting the lower limit position of the movement range**

Press the [▲] or [▼] button of the wireless remote control to turn the unit as far as the position which will serve as the lower limit.
Next, perform the steps in "Basic limiter operations". (Press the [MENU] button quickly and then press the [▼] button for 2 seconds while holding down the [PRESET] button.)

● **Setting the left-most limit position of the movement range**

Press the [◄] or [►] button of the wireless remote control to turn the unit as far as the position which will serve as the left-most limit.
Next, perform the steps in "Basic limiter operations". (Press the [MENU] button quickly and then press the [◄] button for 2 seconds while holding down the [PRESET] button.)

● **Setting the right-most limit position of the movement range**

Press the [◄] or [►] button of the wireless remote control to turn the unit as far as the position which will serve as the right-most limit.
Next, perform the steps in "Basic limiter operations". (Press the [MENU] button quickly and then press the [►] button for 2 seconds while holding down the [PRESET] button.)

Setting/releasing the limiters

■Releasing the limiters

The limiter positions that are set can be released by following the steps below.
When the position is released, the tally lamp blinks twice.

1 **Press one of the [CAM1] to [CAM4] buttons to select the unit.**

2 **Release the limiters by taking the steps below.**

- **Releasing the upper limit position of the movement range**
  Perform the steps in "Basic limiter operations".
  (Press the [MENU] button quickly and then press the [▲] button for 2 seconds while holding down the [PRESET] button.)

- **Releasing the lower limit position of the movement range**
  Perform the steps in "Basic limiter operations".
  (Press the [MENU] button quickly and then press the [▼] button for 2 seconds while holding down the [PRESET] button.)

- **Releasing the left-most limit position of the movement range**
  Perform the steps in "Basic limiter operations".
  (Press the [MENU] button quickly and then press the [◄] button for 2 seconds while holding down the [PRESET] button.)

- **Releasing the right-most limit position of the movement range**
  Perform the steps in "Basic limiter operations".
  (Press the [MENU] button quickly and then press the [►] button for 2 seconds while holding down the [PRESET] button.)

■Resetting the limiters

To reset the limiters, the currently established settings must be released.
The limiter positions that are set can be reset by following the steps below.

1 **Release the settings of the limiter positions to be reset by following the steps in "Releasing the limiters".**

2 **Set the limiter positions by following the steps in "Setting the limiters".**

Safe mode

■ Concerning the safe mode

The unit is equipped with a safe mode for protection from damage.

When a safe mode is established, some or all of operations will no longer be accepted.

Trouble-triggered safe mode

When the unit has detected trouble, the "trouble-triggered safe mode" is established: In this mode, the unit's functions are shut down and then the unit is returned to its regular status in about 30 seconds after it has been started up again or the initial setting operation is performed.
(When the unit has detected trouble again, the "trouble-triggered safe mode" will be established again.)

Note

● The output of pictures might be suspended when the safe mode is established.
In this case, the output of pictures will be restarted about 5 to 10 seconds later.

Notes on Windows Vista® / Windows® 7

When using Microsoft® Windows Vista® or Microsoft® Windows® 7, symptoms described in this document may happen.
If any of them occurred, follow the instructions to solve each problem.
The symptoms that happen when using Windows Vista® may also happen when using Windows® 7.
If using Windows 7, refer to the section "Precautions when using Windows Vista" in addition to the section "Precautions when using Windows 7" in this document.

- This document describes solutions for administrators.
- If necessary, install the viewer software.
  (Refer to the Operating Instructions of each device for details on how to install the viewer software.)
- Descriptions in this document are based on operation check by Panasonic System Networks Co., Ltd.
  Possible symptoms may vary depending on platforms or operating system versions, etc.

■ System requirements for a PC

Refer to the section "System requirements for a PC" in the installation guide or Operating Instructions provided with the product to be used for further information about the recommended specifications of a PC.
In case there are no descriptions of Windows Vista® or Windows® 7, refer to the following.

CPU	Intel® Core™ 2 Duo 2.4 GHz or faster
Memory	1 GB or more
Network interface	10BASE-T/100BASE-TX 1 port
Monitor	1024 × 768 pixels or more, 24-bit True color or better
OS and web browser	Windows® 7 Professional 64-bit[1] Windows® 7 Professional 32-bit[1] — Windows® Internet Explorer® 8.0[2]
	Windows Vista® Business SP1 32-bit — Windows® Internet Explorer® 7.0

[1]: Windows® XP compatibility mode is unavailable.
[2]: Internet Explorer® 8.0 64-bit version is unavailable.

■ Trademarks and Registered Trademarks

- Microsoft, Windows, Windows Vista, and Internet Explorer are registered trademarks of Microsoft Corporation in the United States and other countries.
- Intel and Intel Core are trademarks or registered trademarks of Intel Corporation in the United States and other countries.

  • Trademarks and registered trademarks are abbreviated in the subsequent descriptions in this document.

Notes on Windows Vista® / Windows® 7

■ Precautions when using Windows Vista

Symptom 1

● When accessing the web browser, the following message is displayed on the information bar.
   "Pop-up blocked. To see this pop-up or additional options, click here…"
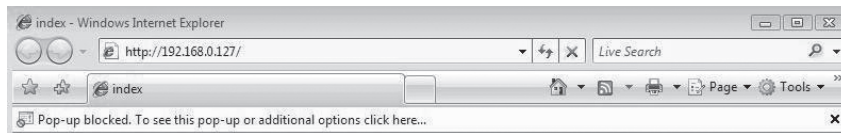
Solution

Add the IP address of the product to "Trusted sites", and perform the security setting.

① Start up the web browser, and click "Internet Options" on the Tools menu.
② Click the [Security] tab. Then, select the "Trusted sites".
   (Refer to the screenshot.)
③ Select "Low" for "Security level for this zone". If the lower setting is selected, the
   security level of PC will go down.
④ Click the [Sites] button to open the "Trusted sites" window.

⑤ Enter the IP address in the textbox "Add this website to the zone:", and click the
   [Add] button.
   Note: Make sure "Require server verification (https:) for all sites in this zone" is
            unchecked. (Refer to the screenshot.)
⑥ After adding all IP addresses, click the [Close] button to close the "Trusted Sites"
   window.
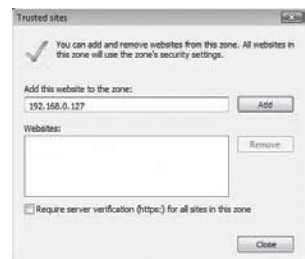
Notes on Windows Vista® / Windows® 7

Symptom 2

● Easy IP Setup Software does not display the detected IP address.

Solution

Check the firewall settings. If firewall is activated, add the web browser or Easy IP Setup Software to the [Exceptions] tab on the "Windows Firewall Settings" menu.

① Open the control panel, and click "Security".
② Click "Allow a program through Windows Firewall" of "Windows Firewall". (Refer to the screenshot.)
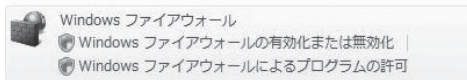
③ Click the [Continue] button on the "User Account Control" window.
Click the [Exceptions] tab on the "Windows Firewall Settings" windows.
If H.264 images or MPEG-4 images are not displayed in real time, check "Internet Explorer". If the Easy IP Setup Software does not display the detected IP address, check "EasyIPSetup.exe". (Refer to the screenshot.)
④ Click the [OK] button.
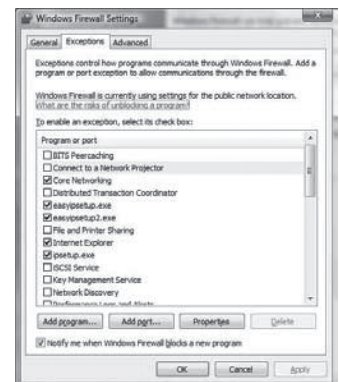
Symptom 3

● When starting the Easy IP Setup Software, a message is displayed to request the password of administrator.
● When exiting the Easy IP Setup Software, the message "This program might not have installed correctly" is displayed.

Solution

Turn off User Account Control (UAC) from the control panel of Windows Vista.

① Open the control panel, and click "User Accounts".
② Select "User Accounts" from "User Accounts".
③ Click "Turn User Account Control On or Off".
④ Click the [Continue] button on the "User Account Control" window.
⑤ Uncheck "Use User Account Control (UAC) to help protect your computer". (Refer to the screenshot.)
⑥ Click the [OK] button.


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Notes on Windows Vista® / Windows® 7

Symptom 4

● The screens of the administrator console or the windows of the browser are not displayed properly. (Refer to the screenshot.)

User Setup Save	SAVE
User Setup Load	LOAD
Factory Default	EXEC

Solution

Check the font size (DPI) of screenshot by clicking "Personalize"– "Adjust font size (DPI)".
If the DPI is set to "Larger scale", set to "Default scale".

① Right-click on the desktop.
② Click "Personalize".
③ Click "Adjust font size (DPI)".
④ Click the [Continue] button on the "User Account Control" window.
⑤ Click "Default scale" on the "DPI Scaling" window, and restart the PC.
   (Refer to the screenshot.)
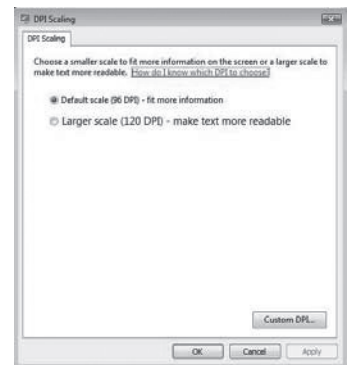
● Restrictions

Restriction 1	**When two browser windows are open and one is being displayed on another** The back window may come to the front when the mouse pointer is placed.
Restriction 2	**When accessing this product from the web browser** Another window may open, and pop-up may be displayed. In this case, audio may be transmitted even after the pop-up is closed.
Restriction 3	**When activating audio on the web browser** Audio may be transmitted even after users are changed. When changing users, close all browser windows that activate audio.
Restriction 4	**When activating the window switcher while displaying images on a full screen on the web browser** The live images may not be refreshed.

Notes on Windows Vista® / Windows® 7

■Precautions when using Windows 7

Symptom 1

● Screen is deformed. / When activating the compatibility view, part of the screen is not displayed or a pop-up window appears to say that the screen is not displayed again.

Solution

Check "Display all websites in Compatibility View" on the "Compatibility View Settings" window.

① Start up the web browser, and click "Tools" on the menu bar.
② Click "Compatibility View Settings".
③ Check "Display all websites in Compatibility View", and click the [Close] button.
   (Refer to the screenshot.)
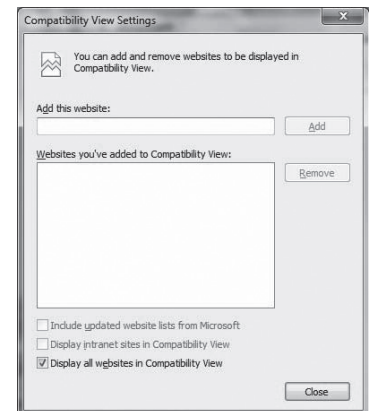
Symptom 2

● Network disconnection occurs when the PC enters the sleep mode.

Solution

After canceling the sleep mode, reload the screen as necessary.

Symptom 3

● Characters such as a file name cannot be entered directly on the window or tab to upgrade the software.
   (Refer to the screenshots.)
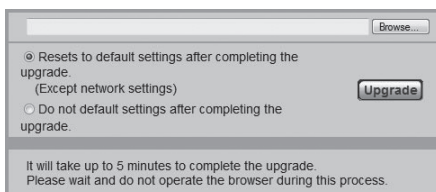
Solution

Click the [Browse...] button to display the "File Selection" window to select a file.

Notes on Windows Vista® / Windows® 7

Symptom 4

● Software upgrade is impossible even when selecting a file from the dialog box displayed from the window or tab to upgrade the software.
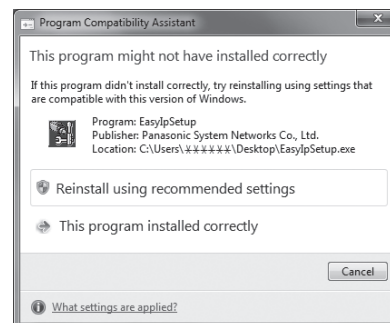
Solution

Perform the custom level setting on the "Security Settings" window.

① Start up the web browser, and click "Tools" on the menu bar.
② Select "Internet options".
③ Click the "Security" on the displayed window, and click the [Custom Level…] button.
④ Click "Include local directory path when uploading files to a server" to activate the setting. (Refer to the screenshot.)
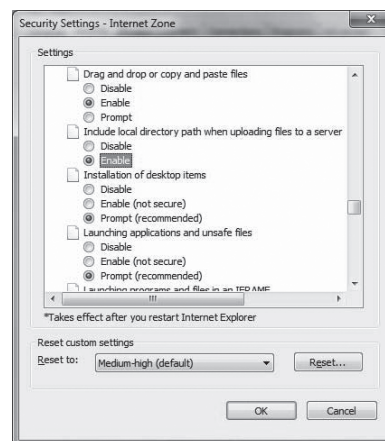
Symptom 5

● The "Program Compatibility Assistant" is displayed after exiting the Easy IP Setup Software. (Refer to the screenshot.)

Solution

This symptom happens only when the software has been used for the first time.
Select "This program installed correctly".

●Restrictions

Restriction 1	On the setup pages for some products
	The display positions of setting items and setting values may not be correspondent.
Restriction 2	When using Windows 7 with some products
	Two web browser windows may be displayed at the same time. Images are displayed on either window.

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